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ABSTRACT

Recent Title I regulations have allowed local school districts to use Title I funds to establish schoolwide projects to upgrade the educational program for the entire school, not just for targeted students. Austin, Texas, used Title I and local funds to establish two schoolwide projects where pullout programs were ended and the pupil/teacher ratio was lowered to 15-to-1. Evaluation findings showed that: (1) the lower pupil/teacher ratio gave a meaningful boost to achievement in reading, language, and math; (2) the project teachers had very high morale and felt more effective in their work; (3) the lower pupil/teacher ratio may have had more impact on the quality of instruction (less off-task time, better teacher monitoring of work, earlier corrective feedback, fewer adults with instructional responsibility for the child, fewer disruptions, etc.) than on its quantity; (4) the program is expensive; and (5) adequate classroom space can be a problem. Implications of the findings for planning Title I Programs are briefly discussed. (Author/GK)

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A CAUSE FOR NATIONAL PAUSE: TITLE I SCHOOLWIDE PROJECTS

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Abstract

Recent Title I regulations have allowed local school districts to use Title I funds to establish schoolwide projects to upgrade the educational program for the entire school, not just for targeted students. Austin used Title I and local funds to establish two schoolwide projects where pullout programs were ended and the pupil/teacher ratio was lowered to 15-to-1. Evaluation findings showed that:

- The lower pupil/teacher ratio gave a meaningful boost to achievement in reading, language, and math.
- The project teachers had very high morale. They felt more effective in their work.
- The lower pupil/teacher ratio may have had more impact on the quality of instruction (less off-task time, better teacher monitoring of work, earlier corrective feedback, fewer adults with instructional responsibility for the child, fewer disruptions, etc.) than on its quantity.
- The program is expensive.
- Adequate classroom space can be a problem.

Implications of the findings for planning Title I Programs are briefly discussed.

A Cause for National Pause:
Title I Schoolwide Projects

David Doss
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Austin Independent School District

"Pull out programs are not effective." When Austin evaluators kept repeating this research dictum to conscientious program planners in the Austin Independent School District, there was considerable dismay among program planners. AISD evaluators had previously shown that teacher aides were similarly ineffective. This doesn't leave many program alternatives. The District tried to move toward a "floating teacher" approach to delivering services that would not supplant; that is, a Title I teacher went into a regular classroom and worked with a group of Title I students for a part of a day. Team approaches in a "language arts' block" period were also tried. Neither of these were appealing to school staff, however, and typically a school that began with a "floating teacher" would backslide before the year advanced very much. Sharing a classroom is simply uncomfortable for most teachers. Team teaching is also an unpopular elementary schema.

The provision for schoolwide projects appeared in the 1978 Education Amendments Act at just the right time. The available options seemed to have been exhausted and this presented a new hope. At about the same time, the Gene Glass meta-analysis of the effects of class size appeared. It offered new hope that class size reductions might be beneficial especially if the ratio could be held to 15-to-1 or less. The District had had a locally funded special project for some years in which an overall reduction of class size to 22-to-1 pupil/teacher ratio in the majority of Title I schools demonstrated a slight positive relationship to achievement. AISD classroom observations also indicated that compensatory programs during the regular day inevitably supplanted regular instruction (Ligon and Doss, 1982). Other research in the District seemed to suggest that a possible reason for the ineffectiveness of pullout programs was the regular classroom teacher's decreased sense of responsibility for the special program student.

The "schoolwide projects" provision meant that schools with greater than 75% low-income populations could serve the entire school population *provided the district match from local funds the Title I per-pupil expenditures for each non-Title I student.* This provision, added to the enabling legislation by Congress because of concern expressed by the Lawyers Committee for Civil Rights Under Law, was one reason that only 19 of 600 eligible districts implemented schoolwide projects during the first possible year for implementation (Rubin and David 1981). In Austin, it took considerable planning and persuasion to bring about the eventual investment of approximately $180,000 per year of local funds for the project in the two district schools meeting the 75% eligibility requirement. Austin ISD had only these two schools eligible following the implementation of a districtwide desegregation order at the elementary level during the 1980-81 school year. The available research was used to argue persuasively for a three year trial project.

Schoolwide projects finally received the necessary district funding in May of 1980.

Project Description

The two schools in which the program occurred were quite different. As previously stated, the 1980-81 school year in which the project began was the first year of a new elementary school desegregation plan. A number of different elementary school patterns resulted from that plan: K-3; K,4-6; K-4; K-6. Kindergartners always remained in the neighborhood school, but in some schools other grades were sometimes bussed in or out. Under a previous desegregation order, the District had established "Sixth Grade Centers." Now all sixth graders returned to the elementary schools. Becker Elementary, one of the Schoolwide Project schools, was unaffected except for this return of sixth graders and some minor boundary changes; it was a K-6 school. The other project school, Allison Elementary, lost grades four and five. It became a K-3 school with no students bussed in.

Because of desegregation changes, all schools were provided a full extra week of staff development in September of 1980. At Becker, this time was used primarily to work on "direct teach" methods and content using district instructional supervisors. Allison used their time for individualized staff development and many external consultants. Both schools had ongoing inservice activities through the year and both used external consultants.

The project schools stressed individual teacher responsibility for student progress. No aides were used at Becker; a few aides remained at Allison during the 1980-81 school year, but they were not retained for the 1981-82 school year. The only pullout activities were those for special education. Both schools had Title VII pre-kindergarten classes on campus. Allison also had a Title I Migrant pre-kindergarten class. Becker had a Migrant reading teacher who worked with students in the regular classroom. The schools also differed substantially in the amount of space available for the additional classes. Allison, having lost two grades, easily had a full classroom for each teacher and 15 students. Becker, though, was very crowded. In some cases team teaching was used with 30 pupils and two teachers in a classroom. In another case, a large room normally divided into two classrooms by folding doors was opened up as one large room with three classes separated by "walls" made of bookcases and tables.

The program was not publicized during 1980-81. Principals did not wish visitations since it was felt these would have been distracting. One school retained most of its former Title I funded staff of reading teachers who did have some initial trepidations about assuming regular class duties. The other school largely hired new teachers to expand the staff.

The Evaluation

The evaluation of the schoolwide projects was one aspect of the overall Title I evaluation effort. The following types of information were gathered:

- Spring-to-spring achievement results in reading, language arts, and math. Schoolwide Project students will be compared with comparable students (from low-income neighborhoods) in regular Title I schools.

- Results of over 350 day-long observations to determine how time is used.
- Interviews with participating teachers.
- Analyses of the cost of the gains obtained.

These information sources led to the findings discussed in the following sections.

Data Analysis

Achievement Analyses

Students from Title I Schoolwide Project (SWP) schools were compared with comparable students from Title I Regular (TIR) schools using the Iowa Tests of Basic Skills administered in April of 1980 and 1981.

The Students: As part of the AISD elementary desegregation plan, many formerly Title I attendance areas were paired with largely Anglo, higher SES attendance areas for school assignments. Some remained Title I; others lost their Title I status. The two SWP schools retained their original ethnic and economic composition. Therefore, the SWP schools and the TIR schools were quite different with regard to ethnicity and income. Over 90% of the SWP school students were from low-income families. They were predominantly Hispanic in ethnicity. All of the students resided in the neighborhood in which each school was located.

TIR schools ranged from about 50% to 75% low income. About 40% to 60% of the students were of Black or Hispanic ethnicity. About 40% to 60% did not come from the school's immediate neighborhood.

In order to make the backgrounds of the two groups to be compared more comparable, the following decisions were made:

1. Only students who had attended a Title I school during the school year prior to the establishment of SWP's were included in the analyses. This removed higher SES, predominantly Anglo students from the Title I Regular population.
2. Students served by the Special Education program were removed.
3. Limited English proficiency students were removed.
4. Students whose teachers had indicated some problem with either the pre- or posttest administration were removed.
5. Irregularities in the testing at one school had seriously inflated the end-of-first grade scores for a number of students. As a result their apparent gains in second grade were very small. All first and second grade scores were removed for that school.

The remaining students were then compared at grades 2-6 using ITBS Reading Total, Language Total, and Math Total grade equivalent scores. (Reading Total grade equivalent scores were obtained through special arrangements with the Riverside Publishing Company, publisher of the ITBS.) Figure 1 shows the number of students and the test forms and levels administered at each grade. Out-of-level testing was done where appropriate at grades 4-6.

Analyses: The plan for the analyses of the data is outlined in Figure 2. The plan was applied to each grade (2-6) by test (Reading, Language, and Math) combination.

Step 1: The first step was to test for curvilinear regression for each group. The test was performed by creating the two linear models shown in Figure 3. The analyses were done using the Regression program on the SPSS package at the University of Texas at Austin. F values were calculated by hand using the formula below:

$$F = \frac{(ESS_2 - ESS_1)/(df)_1}{ESS_1/(df)_2}$$

where

ESS_1 = the error sum of squares for Model 1.

ESS_2 = the error sum of squares for Model 2.

$(df)_1$ = the number of linearly independent predictors in Model 2 minus the number of linearly independent predictors in Model 1.

$(df)_2$ = the number of subjects minus the number of linearly dependent predictors in Model 1.

Step 2: If either the SWP or TIR students showed evidence of a significant F value ($p < .05$) in the analyses above, curvilinear regression was assumed and the two groups were compared on that subtest using Models 1-4 described in Figure 4. Figure 5 briefly describes the characteristics of each model. If neither group evidenced a curvilinear relationship between pre- and posttests, Models 5-7 in Figure 4 were used.

Step 3: The models were compared using the formula given above.

Step 4: Situations where the assumption of homogeneous group regression slopes cannot be accepted complicate the interpretation of the results because the magnitude of the treatment effect is not equal for all values of the pretest. Two programs by Borich, Godbout, and Wunderlich (1976), one for the linear situation and one for the curvilinear case, were used to establish regions of significance for those comparisons where the homogeniety of group regressions was rejected. The programs employ the Johnson-Neyman (1936) technique for determining regions of significance. These programs are limited to a maximum N of 200 for each group. Therefore, a random sample of students from Title I Regular schools was used in each analysis.

Step 5: Finally, as an aid to interpretation, the regression lines for the best fitting model for each comparison were plotted. The regression equations from Step 2 were used to generate data which was plotted using the SPSS Plot routine.

Cost Analyses

Base personnel costs were collected for all instructional personnel in the SWP's and the TIR schools. Base cost means the minimum salary for the bachelors and masters level teachers and the beginning salary for aides.

Base salaries were used because the figures were readily available from the District's Title I comparability report. Data were obtained for all regular teachers, all Title I teachers, and all aides. An average per-pupil expenditure for each type of school was calculated.

Teacher Interviews

SWP school teachers paid from Title I funds were interviewed at their schools near the end of the school year. They were interviewed as a group by the project evaluator and senior evaluator. They were sent a set of questions to review prior to the interview. Most had experience as both regular classroom teachers and as Title I teachers prior to the beginning of the Schoolwide Projects.

Classroom Observations

A total of 352 day-long classroom observations were done by the combined efforts of several evaluations. They were done in SWP schools, TIR schools, and non-Title I schools using the PAR-R. The PAR-R is an observation instrument developed by ORE for observing, minute-by-minute, the activities of an individual student over the course of an entire school day. A detailed description of the PAR-R and the procedures for using it can be found in the Manual for the Use of the Pupil Activities Record-Revised, ORE publication number 78.48 (ERIC number ED179323). Details of how the observations reported here were conducted and the complete findings can be found in Appendix F of the 1980-81 ESEA Title I Regular Program Technical Report, publication number 80.71.

The observations were done by trained observers. Students were chosen for observation using a stratified random sampling approach. Schools were informed of the week during which observations would occur, but they were not told which teachers would be observed. Observations were recorded onto optical scanning sheets. Completed observations were scanned daily and checked for logical errors. When corrections were completed, the data were added to the master file for analysis at the end of the year.

Results

Achievement

The best way to get an overall picture of the results is to examine the plots in Figures 6-20. The plots show the regression lines for the models which best fit the data for the grade and test under consideration. Plots with a separate regression line for each group indicate that they differed significantly. A single regression line indicates that the two groups did not differ. The range of pretest scores is roughly 2.5 standard deviations on each side of the grand mean. Therefore, few cases actually occur at the extremes. Each plot shows the 40th percentile, the local cutoff for Title I eligibility, and the regions of significance where applicable. An examination of the plots suggests the following conclusions:

a. In no case did the Title I Regular school students score significantly higher than the Schoolwide Project students.

b. In most cases the Schoolwide Project students outscored Title I Regular students of the same pretest level.

c. In most cases the impact of the Schoolwide Projects (the difference between the two regression lines) was uniform across all levels of the pretest.

Figures 21-27 add some numbers. Figure 21 reports basic descriptive information. Figures 22-26 report on the significance tests calculated for each grade. As noted earlier, Models 1-4 were used when either group showed a significant curvilinear trend. Models 5-7 were applied when both groups showed linear regression. Only two of the fifteen cases required that the assumption of homogeneous regression slopes be rejected. In all other cases there was a constant difference between groups favoring SWP's across all levels of the pretest. Figure 27 displays that advantage. For example, at second grade in reading, the difference was two months; i.e., SWP students scored two months higher at posttest than TIR school students with the same pretest value. It should be noted that in the three cases where the difference was nonsignificant, the scores favored SWP students.

A great deal of emphasis was placed on the possibility of curvilinearity in planning these analysis because of the presence of the Title I Program in the TIR schools. Since most students below the 40th percentile would be receiving those services, it was felt that at the low-achieving end the Title I Regular regression line might be raised and flattened relative to the higher achieving end. This was especially a possibility in reading since the local program worked with students in that area. One might also expect the TIR school students to outscore the SWP students below the 40th percentile since the SWP teachers did not emphasize reading exclusively.

The plots show that there is no evidence of the Title I Program's being particularly effective in raising reading scores, or other scores for that matter. In no case are the scores of TIR school students below the 40th percentile significantly greater than those of the SWP school students. It is interesting to note, however, that at grades 2, 5, and 6 the SWP advantage in language was greater than the advantage in reading. The same pattern was evident in math at grades 5 and 6. At least in some cases, the value of schoolwide projects may be the boost they give language and math achievement in addition to reading.

The plots can also be examined to see if SWP's benefit high-achieving or low-achieving students most. In almost every case the difference between the regression lines is equal for students of all achievement levels. The only two exceptions are in math at grades 2 and 3. In both cases the higher achieving students show a greater advantage for being in SWP schools. Finally, a caution must be added here. Participation in the Austin Title I Regular Program has not been shown to produce greater gains in achievement than non-participation (Doss and Ligon, 1981). When Title I students were compared with others from the same schools who were transported across town for desegregation purposes to schools without Title I, the general conclusion was that there was no difference in the achievement gains of the two groups in reading. This is in contrast with recent national findings from the Sustaining Effects Study (Anderson, 1981) which showed Title I programs to have a significant impact in reading at grades 1-3. While the Schoolwide Projects are superior to the Title I Regular Program in Austin, they may not be superior to less expensive Title I programs in other districts.

On the other hand, the executive summary of the Sustaining Effects Study reports gains only in reading and math. It also reports that Title I students received from one and a quarter to one and three quarter hours of supplemental reading instruction each five and a half hour instructional day and from one to one and a quarter hours of supplemental math. It is possible that those gains may have come at the cost of gains in other areas like language. It is also possible that SWP's would be more successful than the regular Title I program in those districts with successful programs. What is important to remember is that generalizing from the experiences of one school district to another is always tentative at best.

Classroom Observations

Figures 29-34 report the major results of the classroom observations. These tables provide results for seven groups:

1. low-achieving (at or below the 40th percentile in reading) in SWP schools,
2. high-achieving (above the 40th percentile) students in SWP schools,
3. low-achieving students in TIR schools,
4. high-achieving students in TIR schools,
5. low-achieving students in non-Title I schools that received former Title I students in the desegregation plan,
6. high-achieving students in schools with former Title I students, and
7. high-achieving students in other schools.

The first four groups are of most importance to this paper. Caution must be used when interpreting these findings since no tests have been conducted to determine the statistical significance of the differences shown. However, when one examines the differences between groups in terms of possible educational significance, several findings emerge. It appears that compared to TIR school students, SWP students

a. received slightly more instructional time in basic skills,
b. tended to be on-task more during basic skills instruction,
c. received a little more reading instruction,
d. spent more time working on spelling and listening and perceptual skills,
e. had more minutes of contact with their classroom teacher,
f. had fewer minutes of contact with other teachers,
g. spent more time in their classroom, and
h. worked in groups of a smaller average size.

In summary, it appears that the lower PTR approach had the main effect expected: students spent more time working in their classrooms in contact with their classroom teacher and in smaller groups. The observations also showed that low-achieving TIR school students did not receive any more reading instruction than low-achieving students in non-Title I schools. This finding has been consistent across years in AISD.

Teacher Interviews

The results of the teacher interviews are reported by the questions which were used to form the interview.

a. *How much stress was associated with the change of the Title I Regular school program to a Schoolwide Project.*

This question was raised by one of the Schoolwide Project principals who was concerned that the teachers would feel greater than ordinary stress during the school year because of the feeling that if the project was not a success during the first year, it would be terminated. Some teachers agreed that they had begun the year with a sense of pressure to produce; however, they all agreed that the reduction in stress that resulted from the reduced student/teacher ratio more than outweighed the stress due to the pressure to succeed.

b. *If given a choice, would Schoolwide Project teachers choose to teach in a schoolwide project or a regular Title I project?*

It was felt that some teachers might prefer the somewhat special status of a reading teacher to having a regular class where they were required to prepare and teach all subjects to the same students all day long.

This question was generally met with cheerful derision. The teachers greatly enjoyed the year. They felt that they were more effective than in the past; they felt closer to their students, and they found teaching more interesting. Perhaps most importantly of all, they felt more ownership of what had happened in their rooms and more potent in their ability to have an impact on the lives of their students.

c. *In what areas have the Schoolwide Project teachers had the greatest difficulty adjusting to the new structure?*

This question was included because it was possible that teachers who had been with the Title I Program for several years might have trouble returning to the routine of a classroom teacher.

Only one teacher reported any trouble in this regard. She had no previous experience as a classroom teacher; all of her experience had been with teaching in the Title I Program. She reported getting things under control after a short time.

d. *What specifically do the teachers see as the positive aspects of the lower PTR approach?*

The teachers generally saw all aspects of their job as improved. However, most improvements seem to fall into one of three categories--improvements in efficiency, improvements in the quality of time with students, and improvements in teacher morale.

Improvement in Efficiency: The teachers reported that with 15 students routine tasks such as taking roll and grading papers took less time. The smaller class size seemed to reduce discipline problems and the time devoted to handling them. The teachers also seemed to feel they could make better use of instructional time by seeing reading groups more than once a day or by having more and smaller reading groups. There were fewer interruptions without a pull-out program.

Improvements in Quality of Time: The improvements in the quality of the time with their students had two aspects. First, they were able to better monitor the progress of each student. The teachers felt that they could detect problems sooner and provide more and quicker corrective feedback. The other aspect was an increased closeness between the teachers and their students. They seemed to feel that as they got to know their students better, they were more effective in their teaching.

Improvements in Teacher Morale: Improvement in teacher morale seemed to be nurtured by several factors. The greater closeness they felt with their students in itself was rewarding. Plus, the teachers seemed to feel more in control of what happened to the students in their classes. As a result they felt more ownership for the progress of their students, and they felt more responsible for the success they saw their students having.

One of the unanticipated results of the project was a zero turnover rate in teaching staff in both schools the first year and only one staff member, who left the District for Europe, lost during the current year. In Title I schools with a traditionally high turnover, this was one kind of evidence of teacher satisfaction with the approach.

Cost Analyses

SWP's are expensive. The amounts reported in Figure 28 are base salary figures. If true salary amounts were used, the difference between the average per-pupil expenditures would grow. The expenditure of funds to lower the pupil/teacher ratio appears to produce good achievement gains, almost half a year beyond the comparison group in some cases, yet the costs are great. Whether the benefits are great enough to justify the expenditures is beyond the scope of this paper, but that determination would seem to be influenced greatly by the value one places on closing the achievement gap between low and higher SES students.

Discussion

What have we learned?

1. Lowering the pupil/teacher ratio to 15-to-1 seems to substantially boost the achievement of low-income, minority children in reading, language, and math.

2. The lower PTR improves teacher morale. They feel more effective and successful in their work.

3. The lower PTR may have more impact on the quality of instruction (less off-task time, better teacher monitoring of work, earlier corrective feedback, fewer adults with instructional responsibility for the child, fewer disruptions, etc.) than on the quantity.

4. Lowering the PTR from 25-to-1 to 15-to-1 would increase personnel costs by 67% in the schools and grades where applied.

The recently released executive summary of the Sustaining Effects Study provides confirming evidence for some of the findings above. Initial findings concerning the characteristics of the more successful Title I programs indicate that the following are related to greater student growth:

- Greater amounts of regular instruction.
- Fewer disruptions to instructions (especially at the higher grades).
- Frequent feedback on student progress.
- Greater teacher experience.
- Teacher effort in planning and evaluation (especially in reading).

The first two findings are especially important because they, along with a lower pupil/teacher ratio, are the hallmarks of the Schoolwide Projects. They provide some support for the expectation that characteristics of Schoolwide Projects would make them more successful than the regular Title I program in other school districts as well.

These findings suggest several options for program design. The first is to rush home and lower the PTR to 15-to-1 and end supplemental, pullout programs in all our Title I schools. The new, proposed Chapter I regulations would seem to allow this as long as we spend at least as much local and state money on Title I campuses as we spend on non-Title I schools. Even if the money and space in the schools were available, this might not be the best course to follow. The Sustaining Effects Study shows that there are some Title I Programs out there turning out achievement gains. A better approach might be to try the program in a few schools, as we have done, in order to gauge its value in another setting.

As mentioned above, the programs are expensive. Money is tight. If the program proves successful in a district, it presents a problem for the district decision makers. Can the funds be raised to provide an expensive program of proven value in reducing the achievement gap between low-income and minority and others? How dedicated is the community to reducing that achievement gap?

A wide range of options exist, however, that are less expensive, but may be almost as effective. They would involve using Title I funds in the main to support the lower PTR with a degree of local support above ordinary allocations. A district might reduce the number of schools served by Title I and thereby increase the amount of money available to hire additional classroom teachers. Or the number of schools might remain the same but the Title I teachers could work as regular classroom teachers. Figure 36 shows that in Austin this would have only a modest effect on lowering the PTR. However, ending a pullout program (with its attendant record keeping, testing, materials handling, disruption, and division of instructional responsibility) plus a reduction of the pupil/teacher ratio by 3-6 students might pay off. However, if the Glass and Smith (1979) meta-analysis of PTR and achievement is correct, the lower the PTR the better.

A final set of options involve expending the funds (Title I and others) necessary to lower the PTR dramatically (e.g. to 15-to-1) in a few specially selected target schools. For example, an elementary magnet school with a 15-to-1 PTR might be very attractive to majority parents in a desegregation situation. Similarly these findings might support a lower PTR as an educational alternative to bussing.

These examples of ways that the Schoolwide Project findings might be used to improve Title I programs is hardly exhaustive. It is hoped that given the apparent new flexibility in Title I regulations, others will creatively mesh these findings with local needs and constraints for the improvement of their Title I programs.

Summary

Significantly lowering the pupil/teacher ratio in Title I schools to improve student achievement has great appeal.

- It is simple in concept.
- It is easy to manage (no large supervisory staff is needed).
- It reflects the rising demands for reduced paperwork (no students to identify, no participation reports to complete, no testing for eligibility).
- It reduces instructional interruptions.
- It returns instructional responsibility to the classroom teacher.
- It seems to improve the quality of instruction and teacher morale.
- *Most importantly it seems to improve achievement meaningfully in all basic skill areas.*

Its greatest drawback is its cost. Money is needed for increased personnel costs. Money may be needed for additional building space. However, since Title I funds can serve only a portion of those in need; the future question might be whether it is better to serve an even more limited number with a program that makes a significant difference.

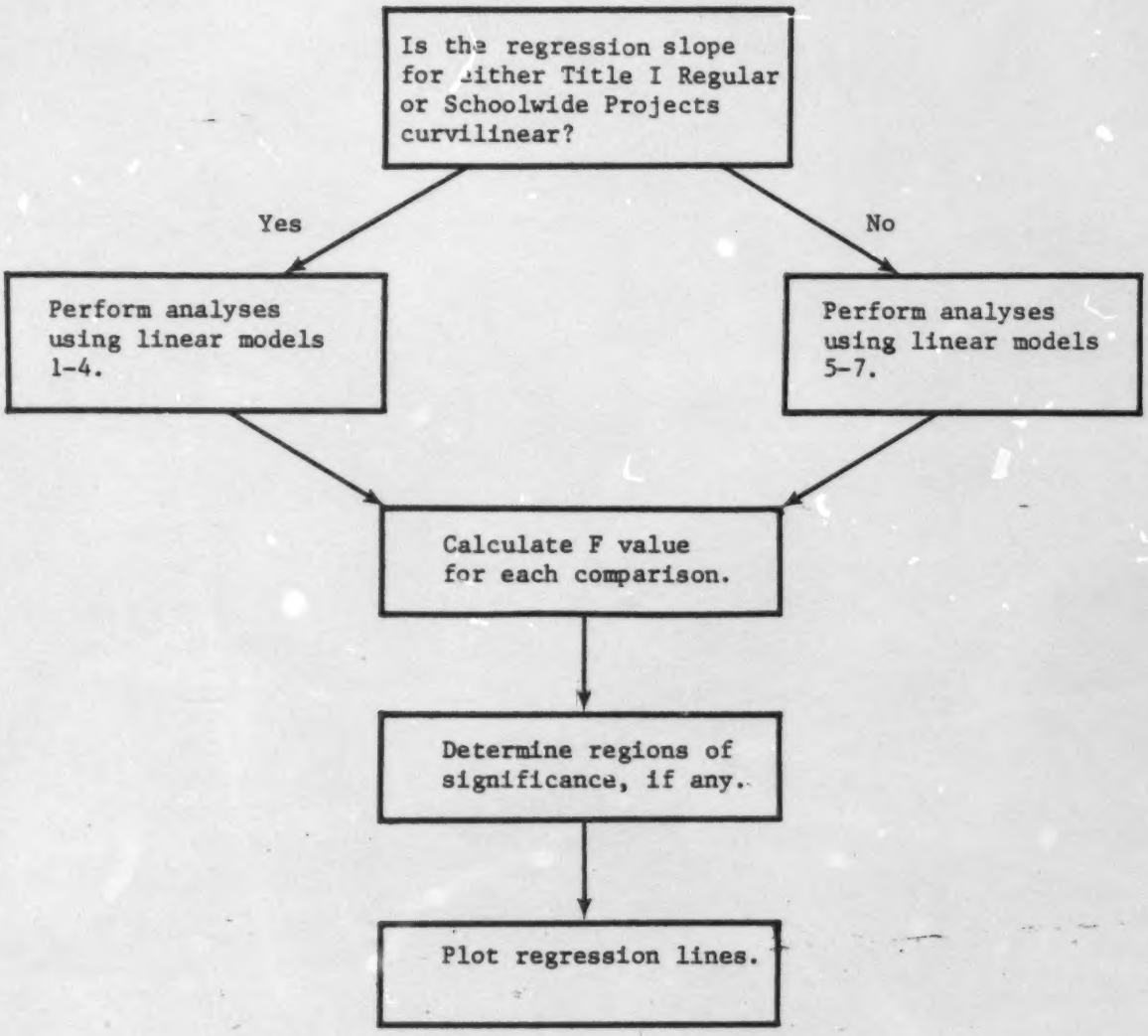

Is the regression slope for either Title I Regular or Schoolwide Projects curvilinear?
Yes
No
Perform analyses using linear models 1-4.
Perform analyses using linear models 5-7.
Calculate F value for each comparison.
Determine regions of significance, if any.
Plot regression lines.

Figure 2: PLAN OF DATA ANALYSIS.

Grade	Form	Level	Number of Students in Analyses					
			Reading		Language		Math	
			SWP	TIR	SWP	TIR	SWP	TIR
1	7	7						
2	7	8	78	553	79	569	80	574
3	7	9	160	577	163	585	161	592
4	7	9,10,11	61	594	58	481	62	467
5	7	10,11,12	44	434	43	432	44	426
6	7	12,13,14	63	389	63	384	63	389

Figure 1: FORM AND LEVELS OF THE ITBS GIVEN AT EACH GRADE AND THE NUMBER OF SCORES USED IN ANALYSES.

Model 1 $\quad Post = a_1U + a_2Pre + a_3Pre^2 + E$

Model 2 $\quad Post = a_4U + a_5Pre + E$

where,

Post = posttest score in grade equivalents

U = unit vector

Pre = pretest score in grade equivalents

Pre^2 = variable Pre squared

E = error

Figure 3: LINEAR MODELS USED TO TEST FOR CURVILINEAR REGRESSION.

Models

Model 1 $Post = a_0U + a_1Pre1 + a_2Pre2 + a_3Pre1^2 + a_4Pre2^2 + a_5Program + E$

Model 2 $Post = a_6U + a_7Pre1 + a_8Pre2 + a_9Pre^2 + a_{10}Program + E$

Model 3 $Post = a_{11}U + a_{12}Pre + a_{13}Pre^2 + a_{14}Program + E$

Model 4 $Post = a_{15}U + a_{16}Pre + a_{17}Pre^2 + E$

Model 5 $Post = a_{18}U + a_{19}Pre1 + a_{20}Pre2 + a_{21}Program + E$

Model 6 $Post = a_{22}U + a_{23}Pre + a_{24}Program + E$

Model 7 $Post = a_{25}U + a_{26}Pre + E$

where

Post = posttest score in grade equivalents

U = unit vector

Pre = pretest score in grade equivalents

Pre1 = pretest score if Schoolwide Project school student; 0, otherwise.

Pre2 = pretest score if student in Title I Regular school; 0, otherwise.

Pre^2 = variable Pre squared

$Pre1^2$ = variable Pre1 squared

$Pre2^2$ = variable Pre2 squared

Program = 1 if Schoolwide Project school student; 0, otherwise.

E = Error

Figure 4: DESCRIPTION OF LINEAR MODELS USED TO COMPARE TITLE I REGULAR AND SCHOOLWIDE PROJECT SCHOOL STUDENTS.

Curvilinear Models

Model 1: Most unrestrictive, allows independent curvilinear slopes for each group.

Model 2: Requires common quadratic element to each regression line.

Model 3: Requires parallel, curvilinear regression lines.

Model 4: Requires parallel, curvilinear regression lines and common intercepts.

Linear Models

Model 5: Allows independent linear slopes.

Model 6: Requires common linear slopes.

Model 7: Requires common slopes and intercepts.

Figure 5: VERBAL DESCRIPTIONS OF LINEAR MODELS USED IN ANALYSES.

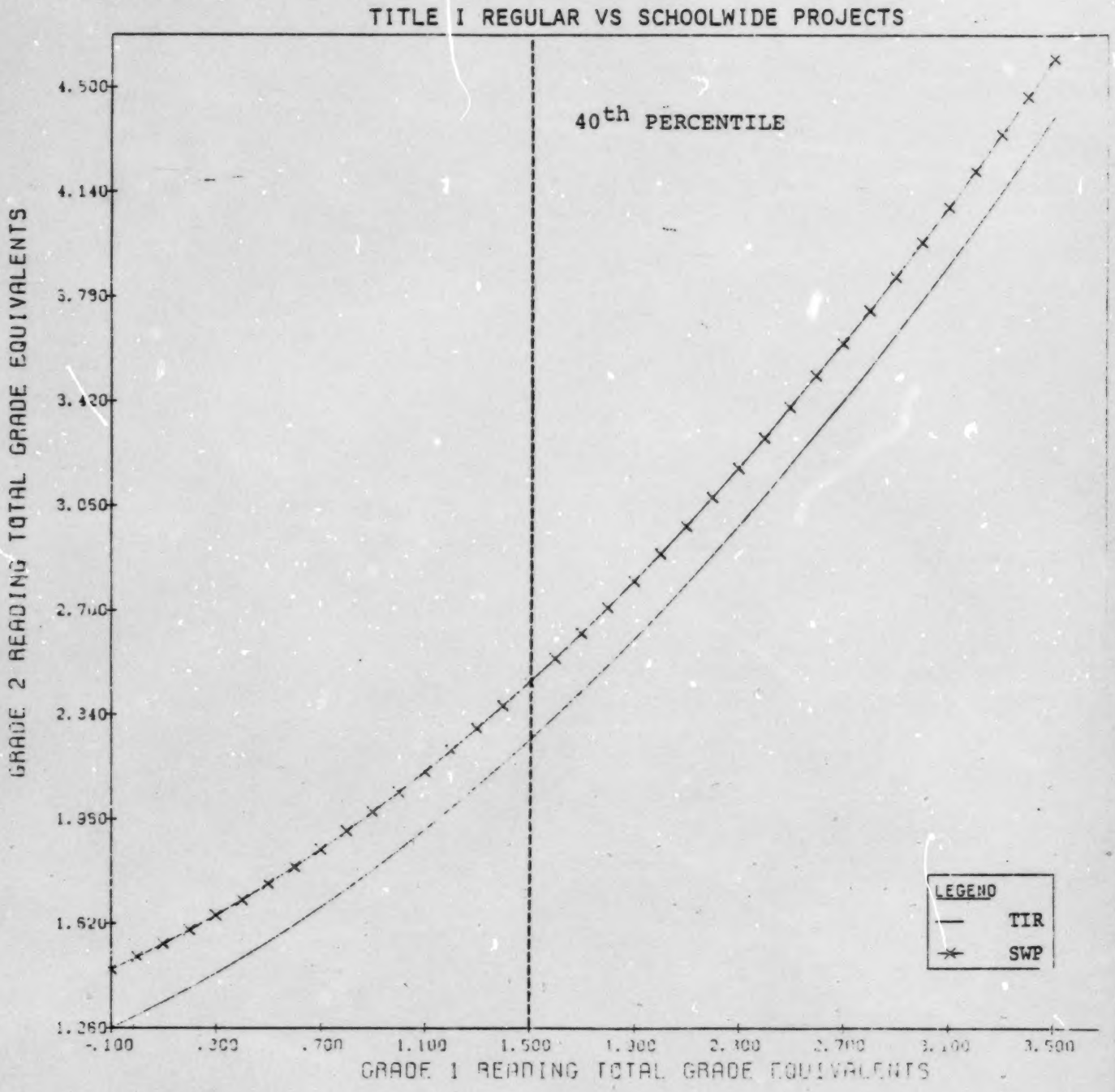


Figure 6: PLOT OF REGRESSION LINES FOR TITLE I SCHOOLWIDE PROJECT AND TITLE I REGULAR SCHOOL STUDENTS—GRADE 2 READING.

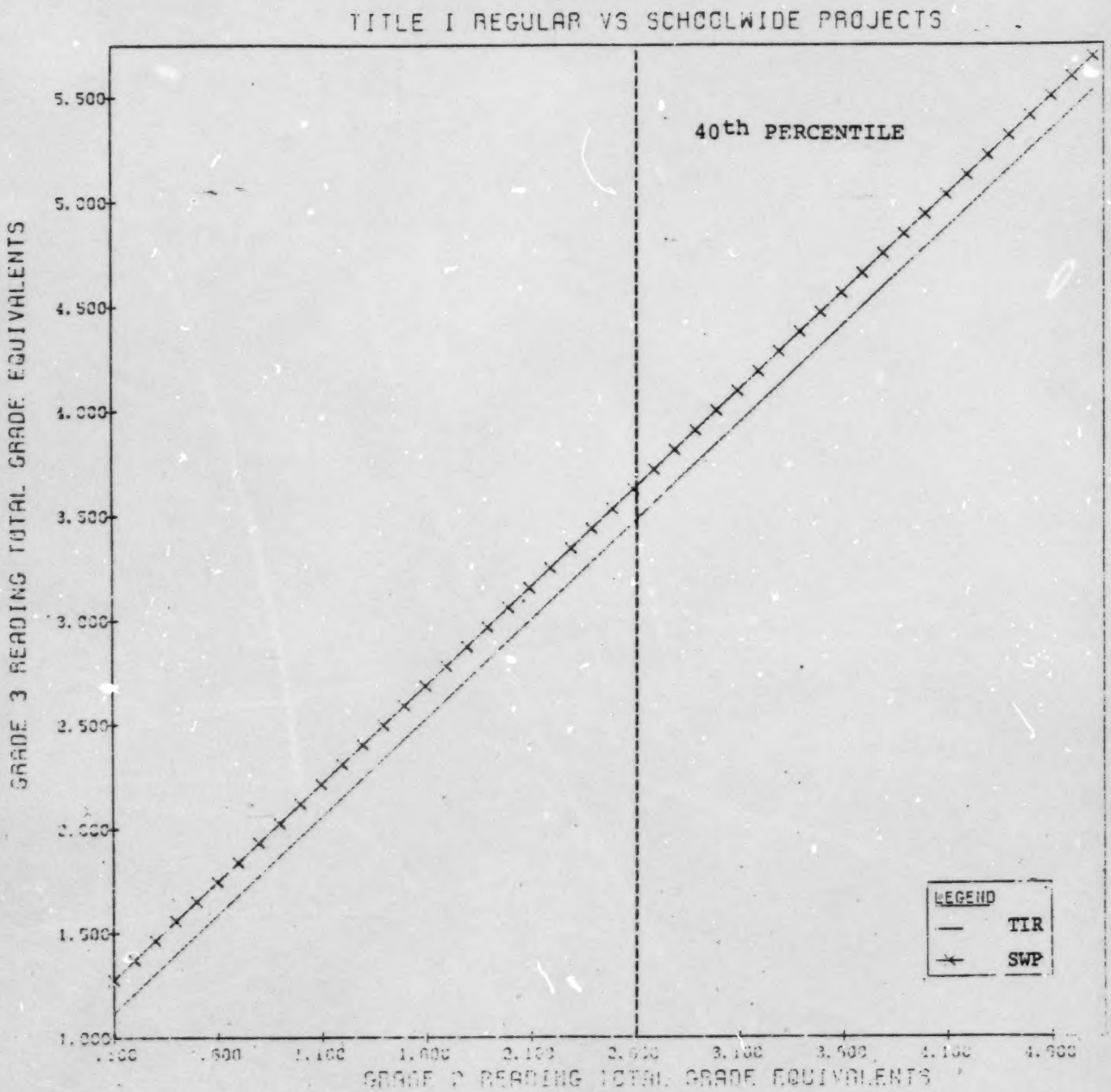


Figure 7: PLOT OF REGRESSION LINES FOR TITLE I SCHOOLWIDE PROJECT AND TITLE I REGULAR SCHOOL STUDENTS--GRADE 3 READING.

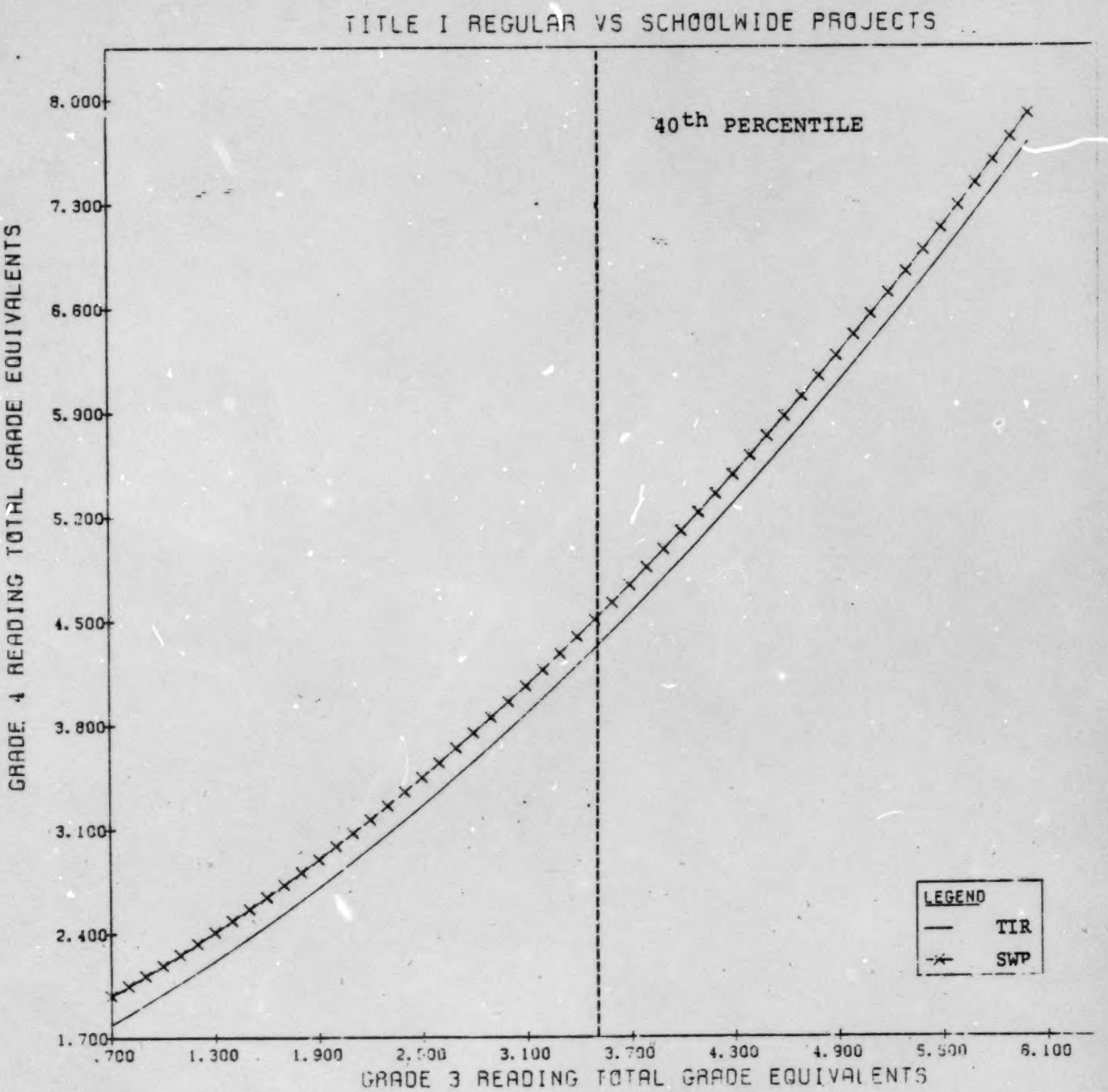


Figure 8: PLOT OF REGRESSION LINES FOR TITLE I SCHOOLWIDE PROJECT AND TITLE I REGULAR SCHOOL STUDENTS--GRADE 4 READING.

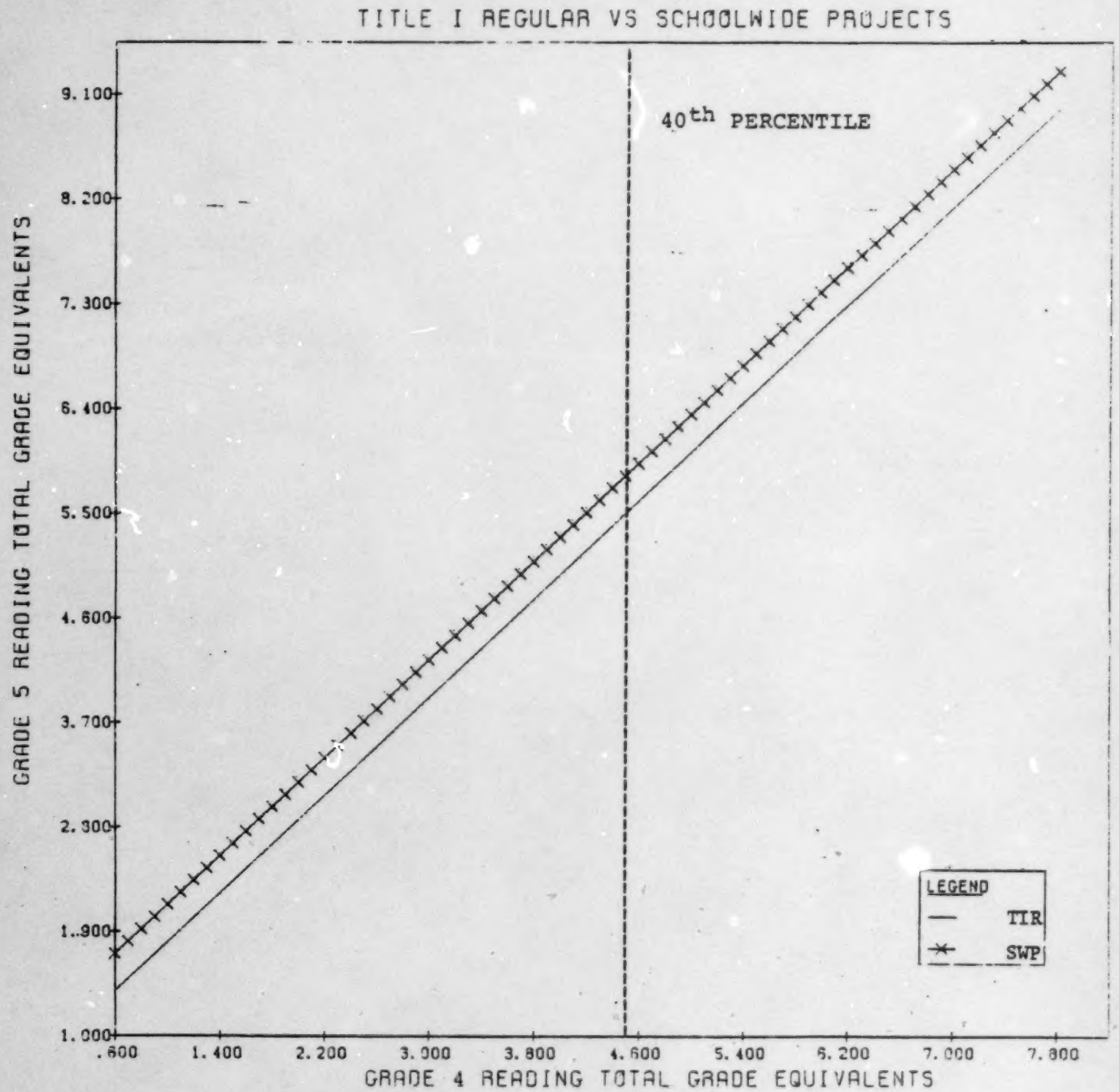


Figure 9: PLOT OF REGRESSION LINES FOR TITLE I SCHOOLWIDE PROJECT AND TITLE I REGULAR SCHOOL STUDENTS—GRADE 5 READING.

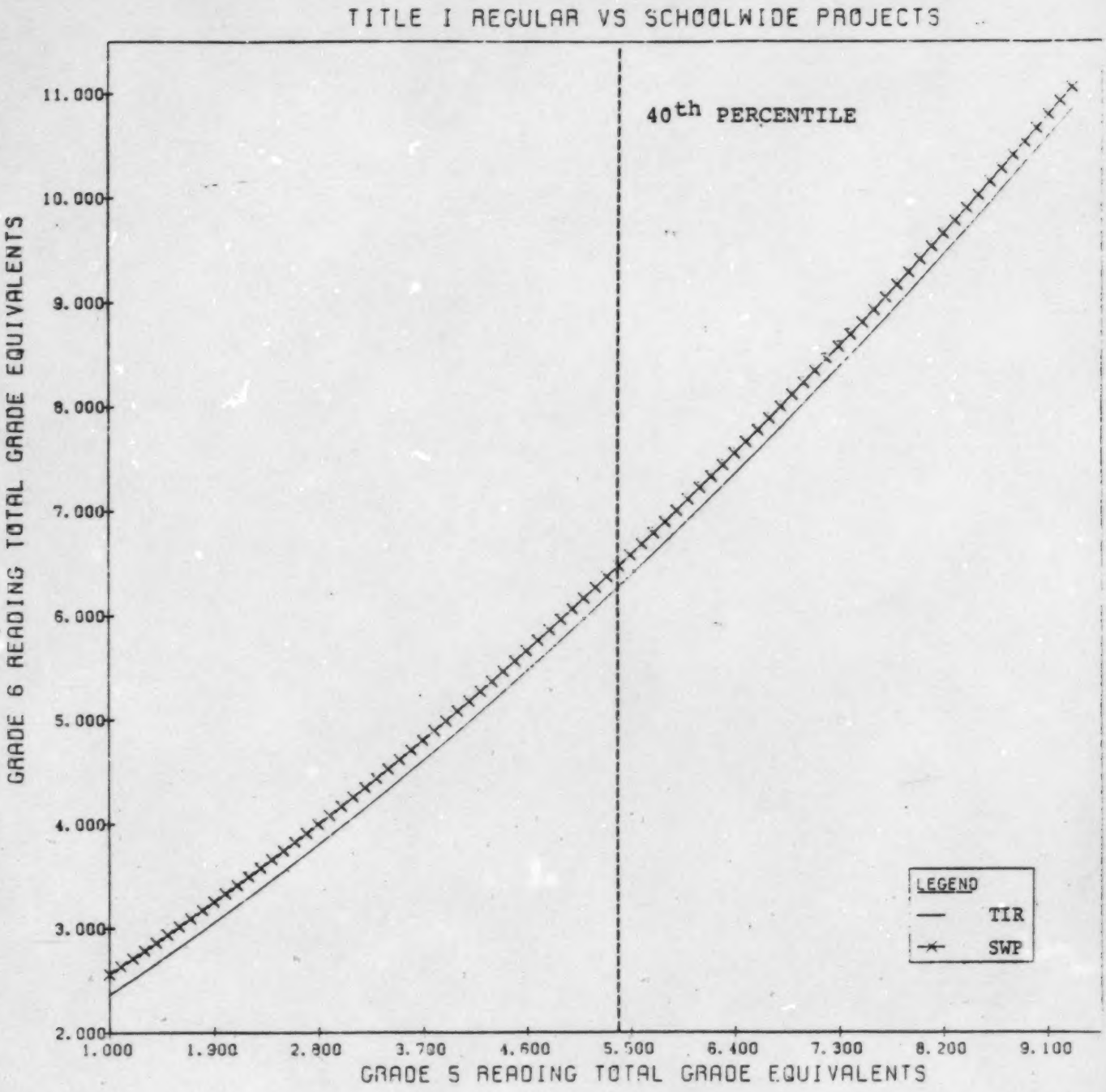


Figure 10: PLOT OF REGRESSION LINES FOR TITLE I SCHOOLWIDE PROJECT AND TITLE I REGULAR SCHOOL STUDENTS--GRADE 6 READING.

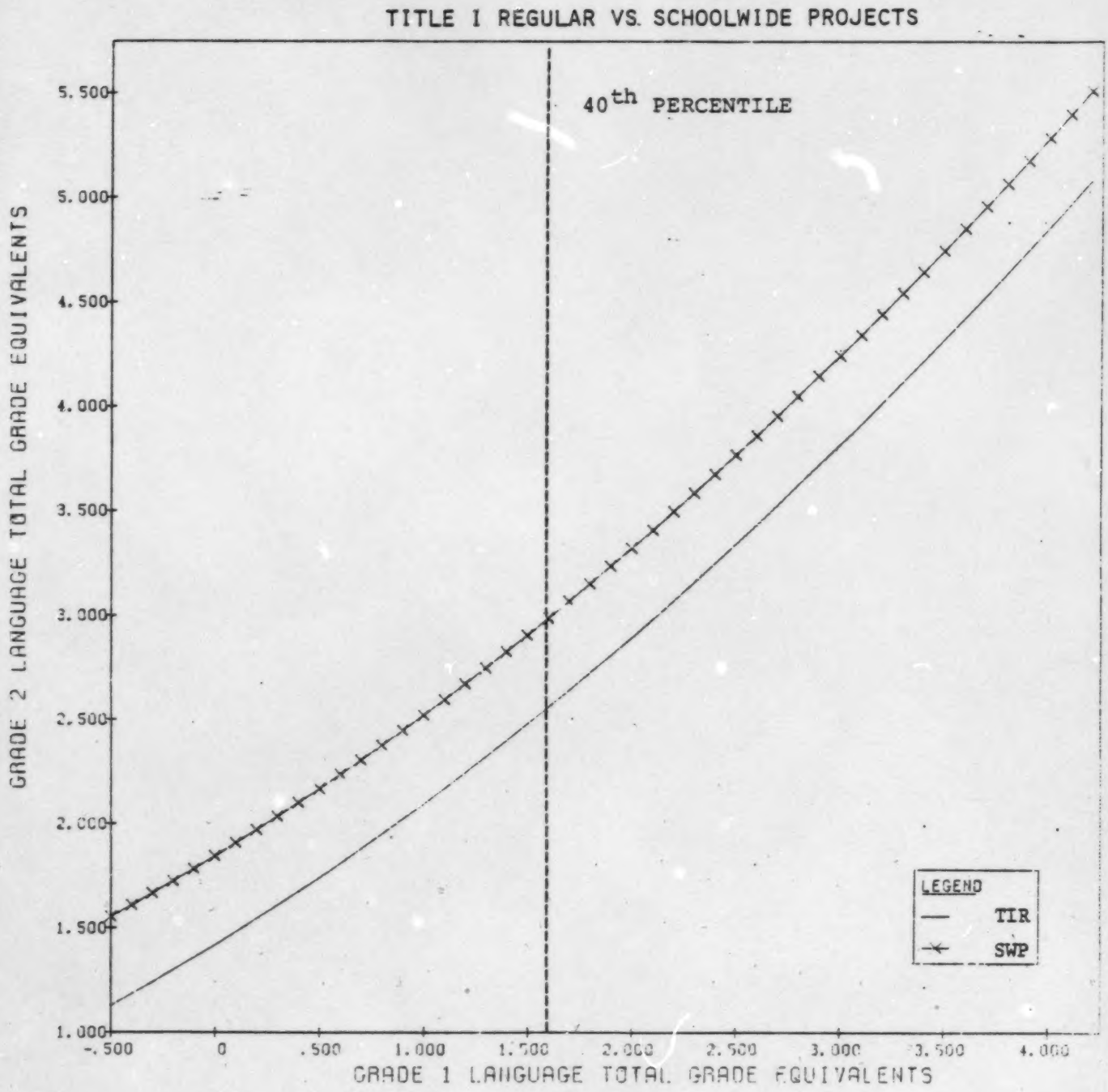


Figure 11: PLOT OF REGRESSION LINES FOR TITLE I SCHOOLWIDE PROJECT AND TITLE I REGULAR SCHOOL STUDENTS--GRADE 2 LANGUAGE.

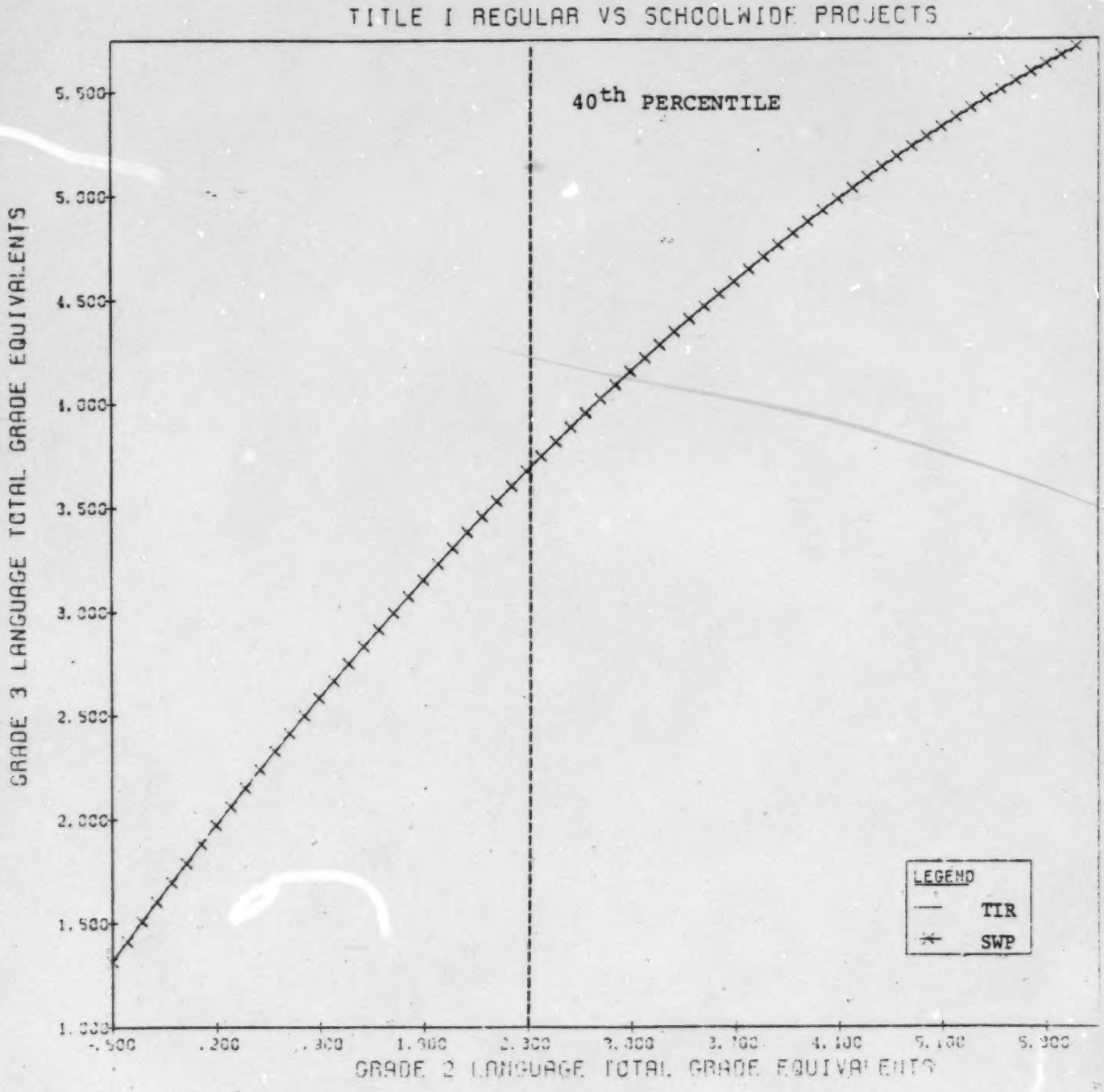


Figure 12: PLOT OF REGRESSION LINES FOR TITLE I SCHOOLWIDE PROJECT AND TITLE I REGULAR SCHOOL STUDENTS--GRADE 3 LANGUAGE.

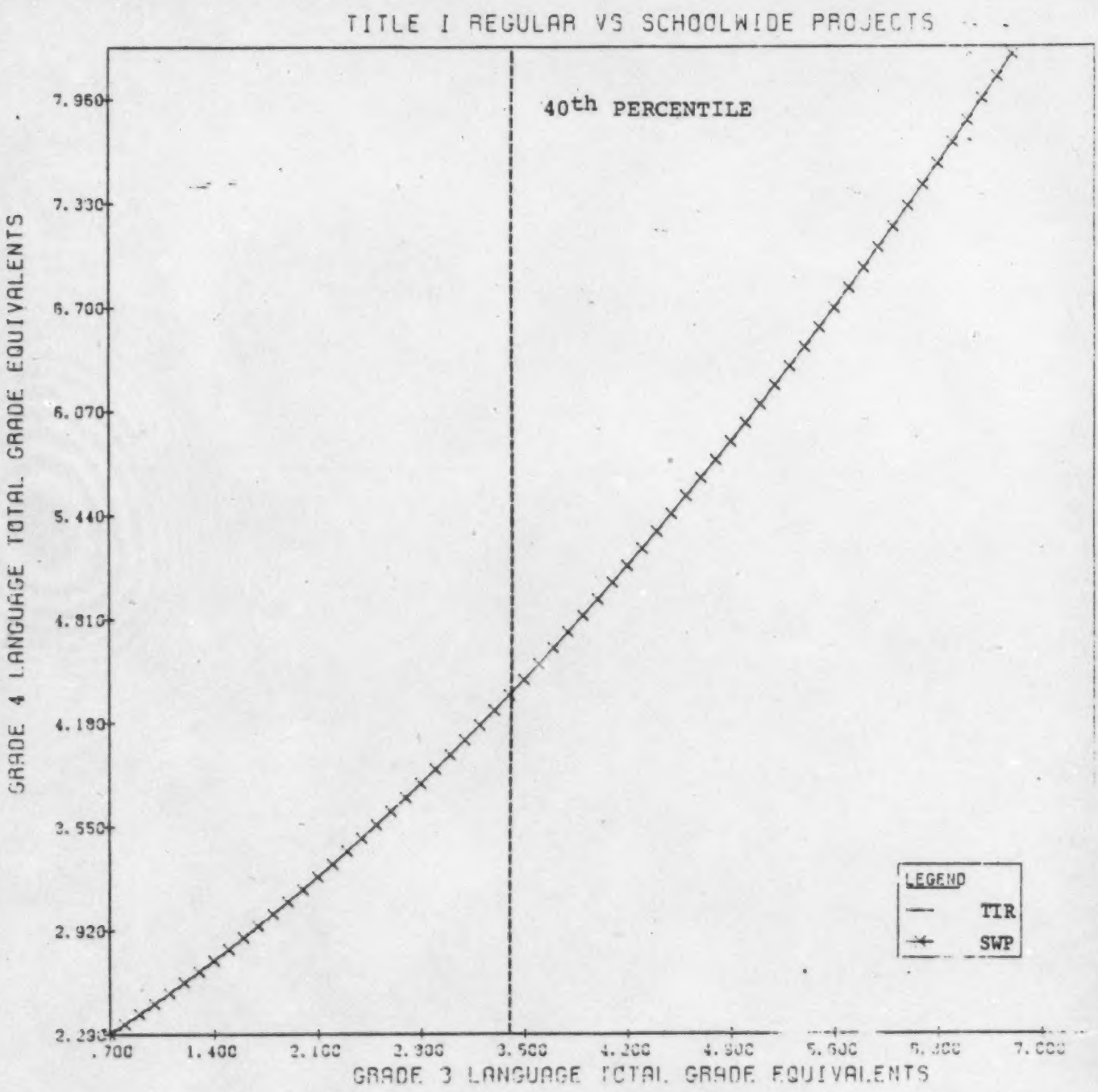


Figure 13: PLOT OF REGRESSION LINES FOR TITLE I SCHOOLWIDE PROJECT AND TITLE I REGULAR SCHOOL STUDENTS--GRADE 4 LANGUAGE.

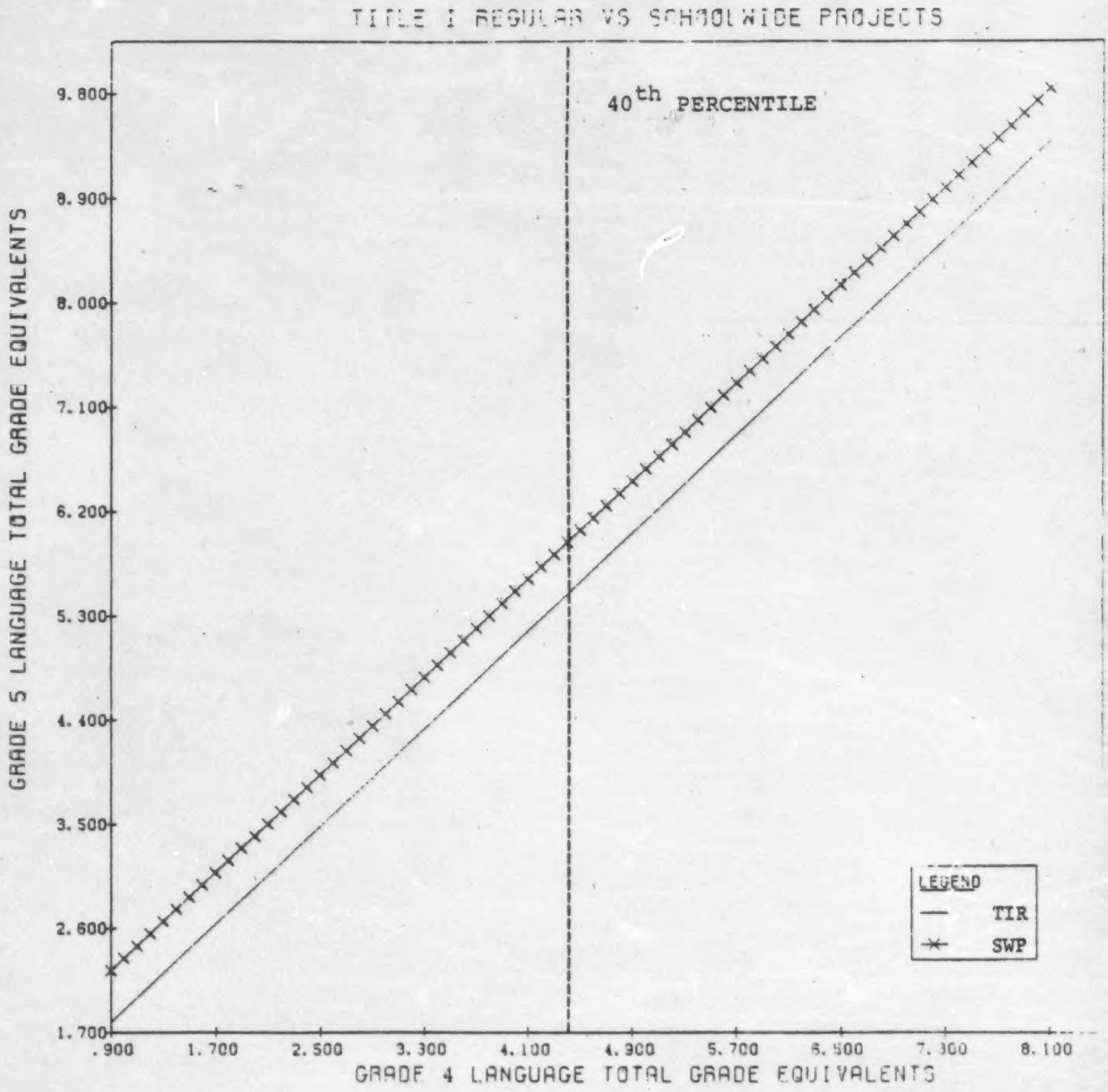


Figure 14: PLOT OF REGRESSION LINES FOR TITLE I SCHOOLWIDE PROJECT AND TITLE I REGULAR SCHOOL STUDENTS—GRADE 5 LANGUAGE.

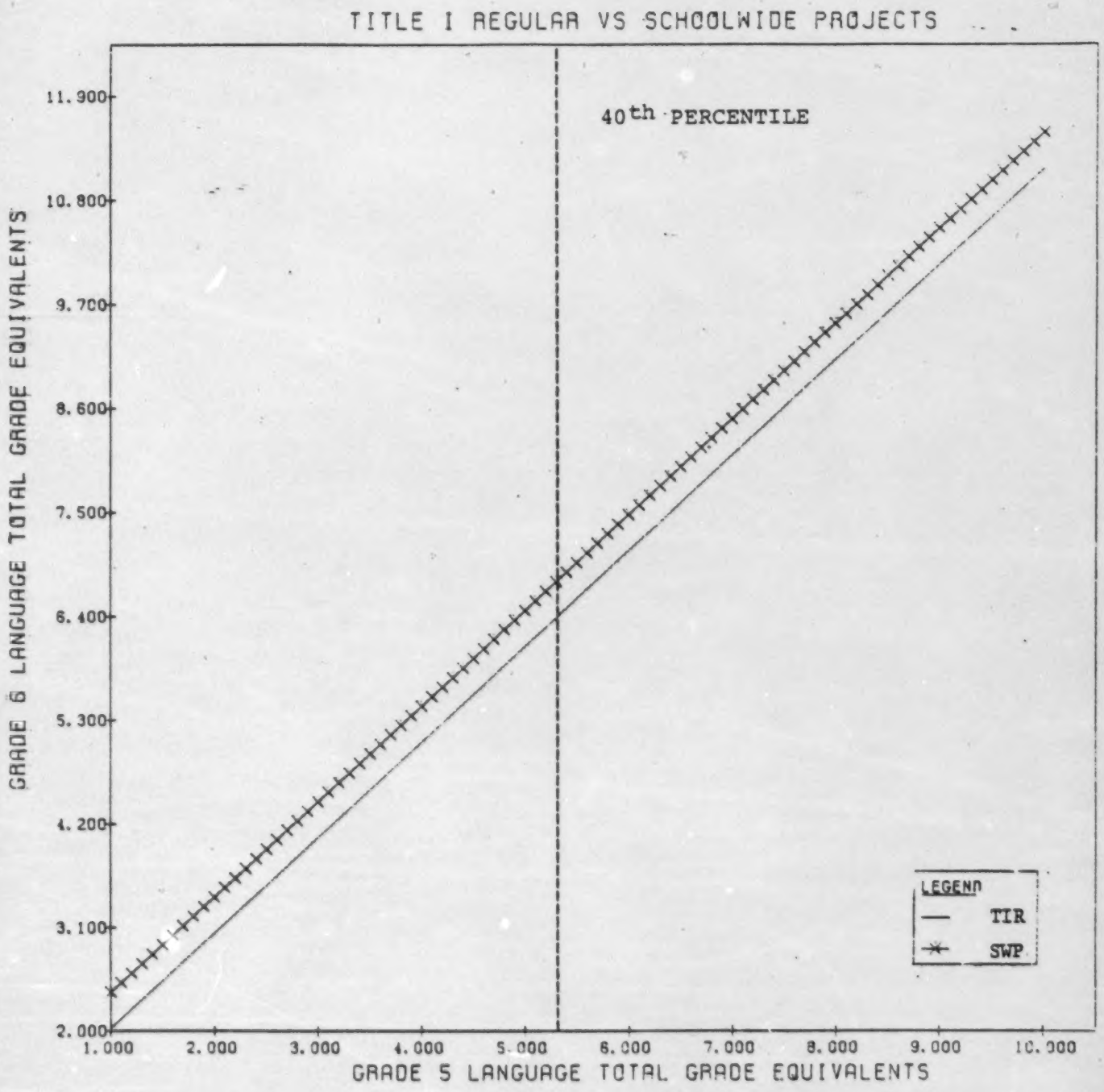
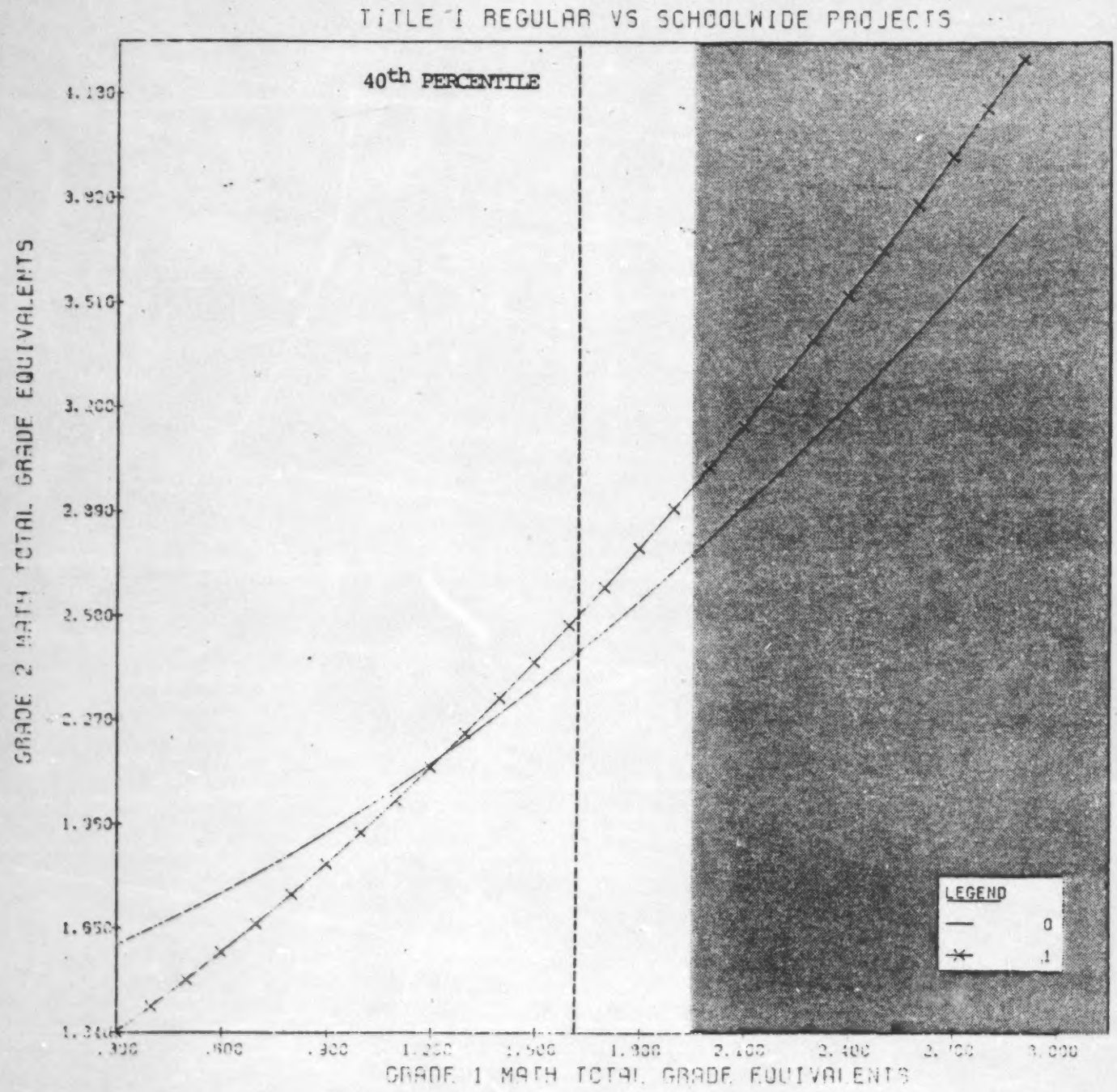
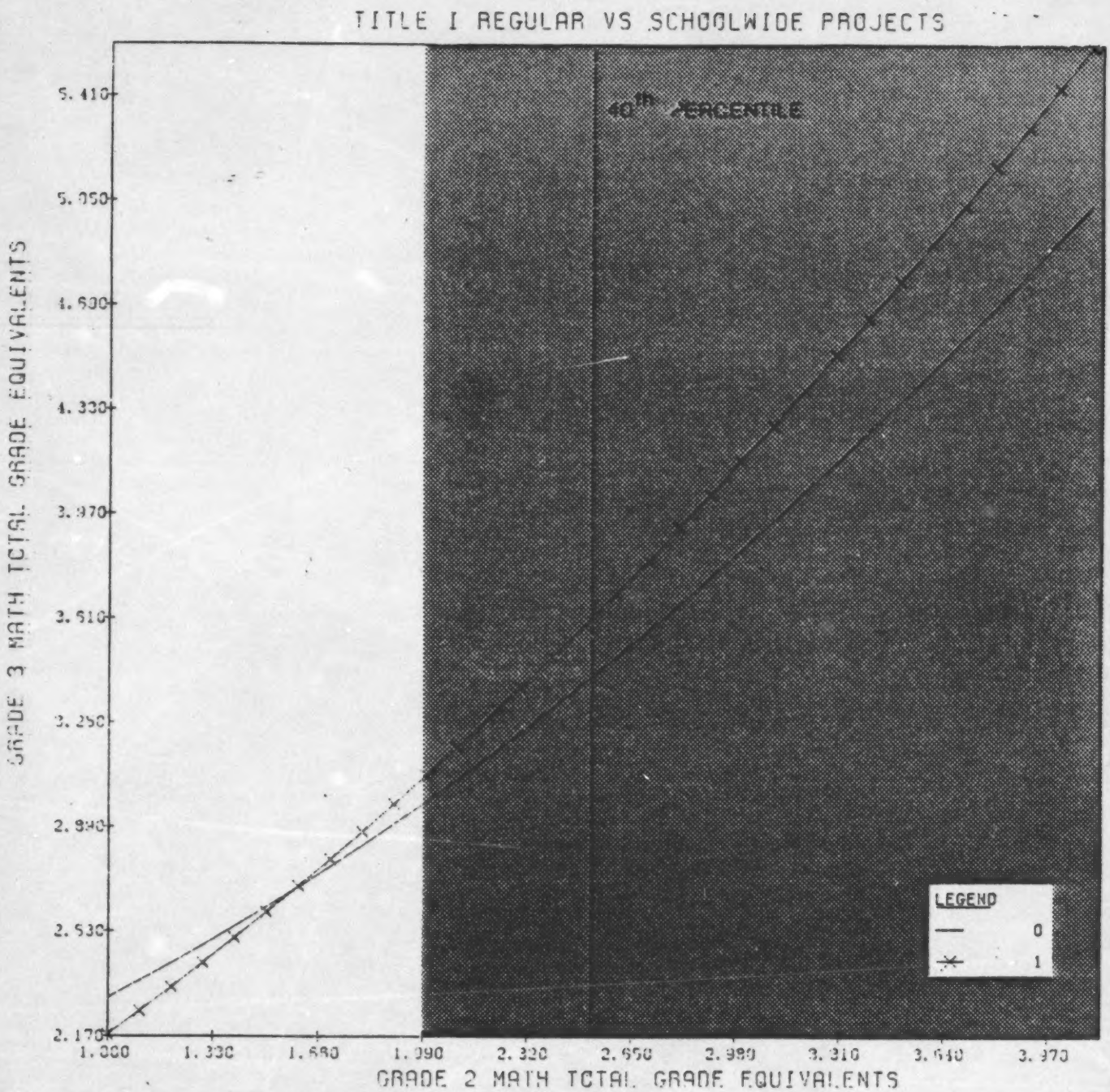


Figure 15: PLOT OF REGRESSION LINES FOR TITLE I SCHOOLWIDE PROJECT AND TITLE I REGULAR SCHOOL STUDENTS--GRADE 6 LANGUAGE.



Designates region of significance

Figure 16: PLOT OF REGRESSION LINES FOR TITLE I SCHOOLWIDE PROJECT AND TITLE I REGULAR SCHOOL STUDENTS—GRADE 2 MATH.



Designates region of significance

Figure 17: PLOT OF REGRESSION LINES FOR TITLE I SCHOOLWIDE PROJECT AND TITLE I REGULAR SCHOOL STUDENTS—GRADE 3 MATH.

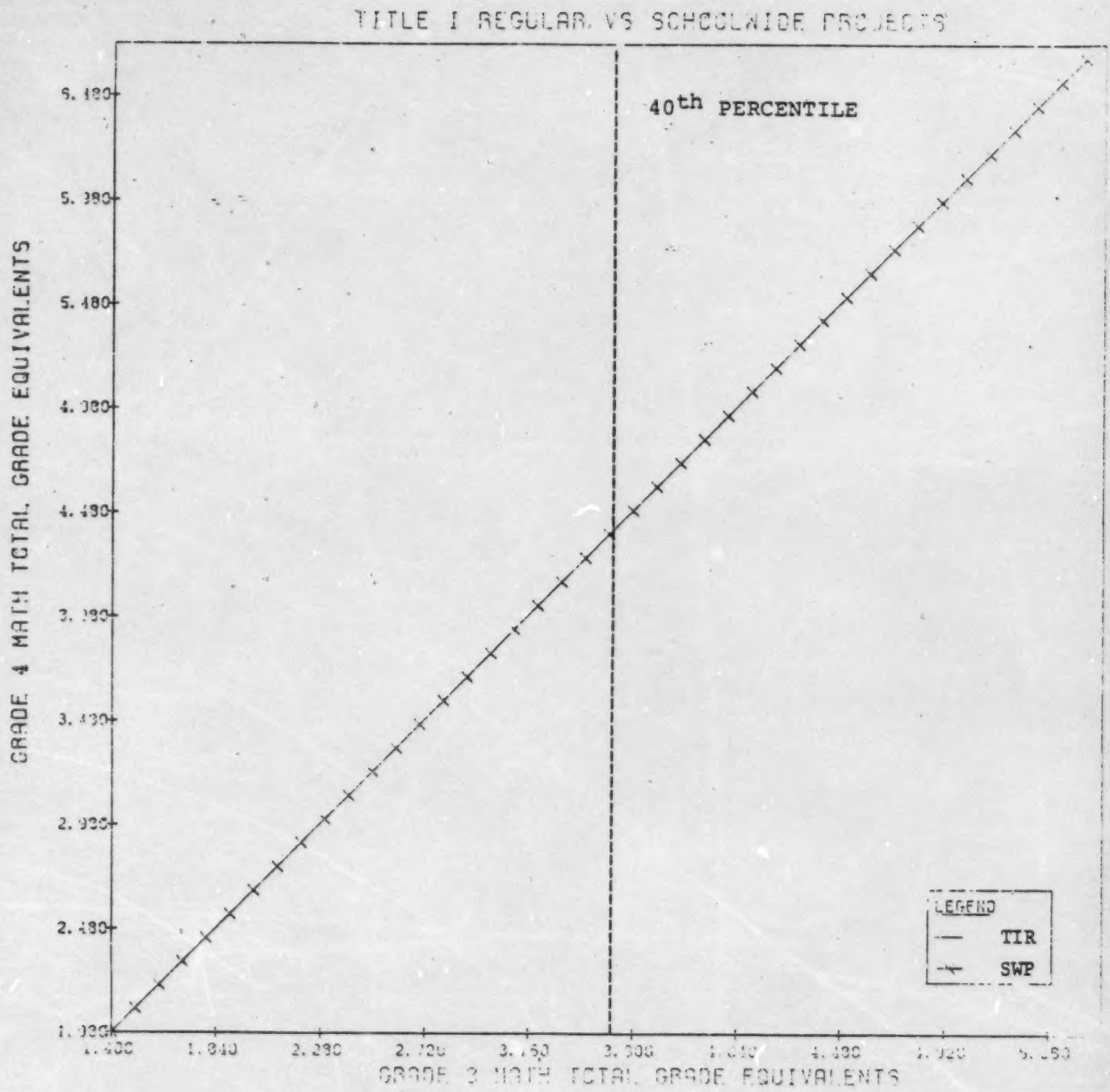


Figure 18: PLOT OF REGRESSION LINES FOR TITLE I SCHOOLWIDE PROJECT AND TITLE I REGULAR SCHOOL STUDENTS--GRADE 4 MATH.

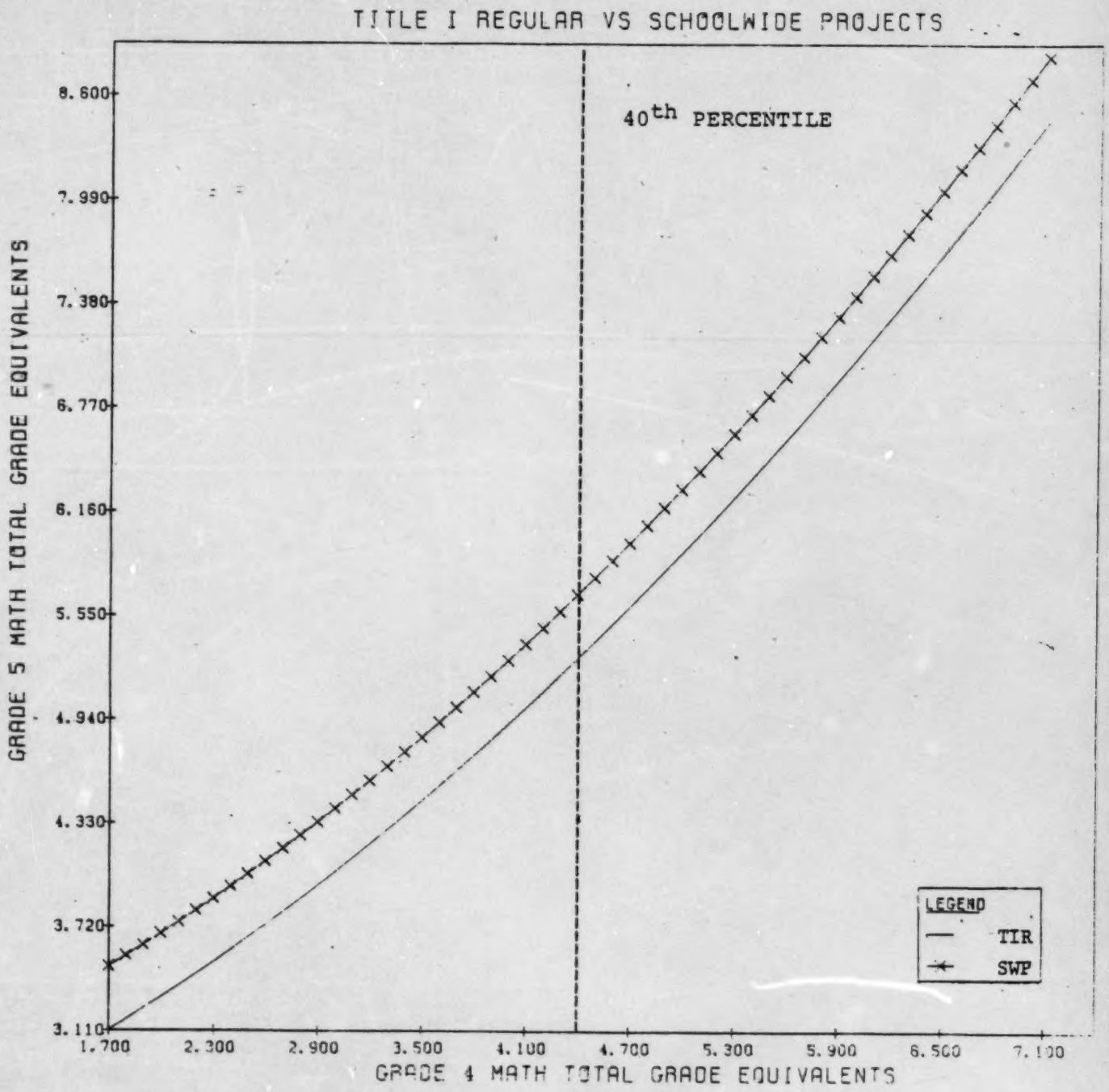


Figure 19: PLOT OF REGRESSION LINES FOR TITLE I SCHOOLWIDE PROJECT AND TITLE I REGULAR SCHOOL STUDENTS--GRADE 5 MATH.

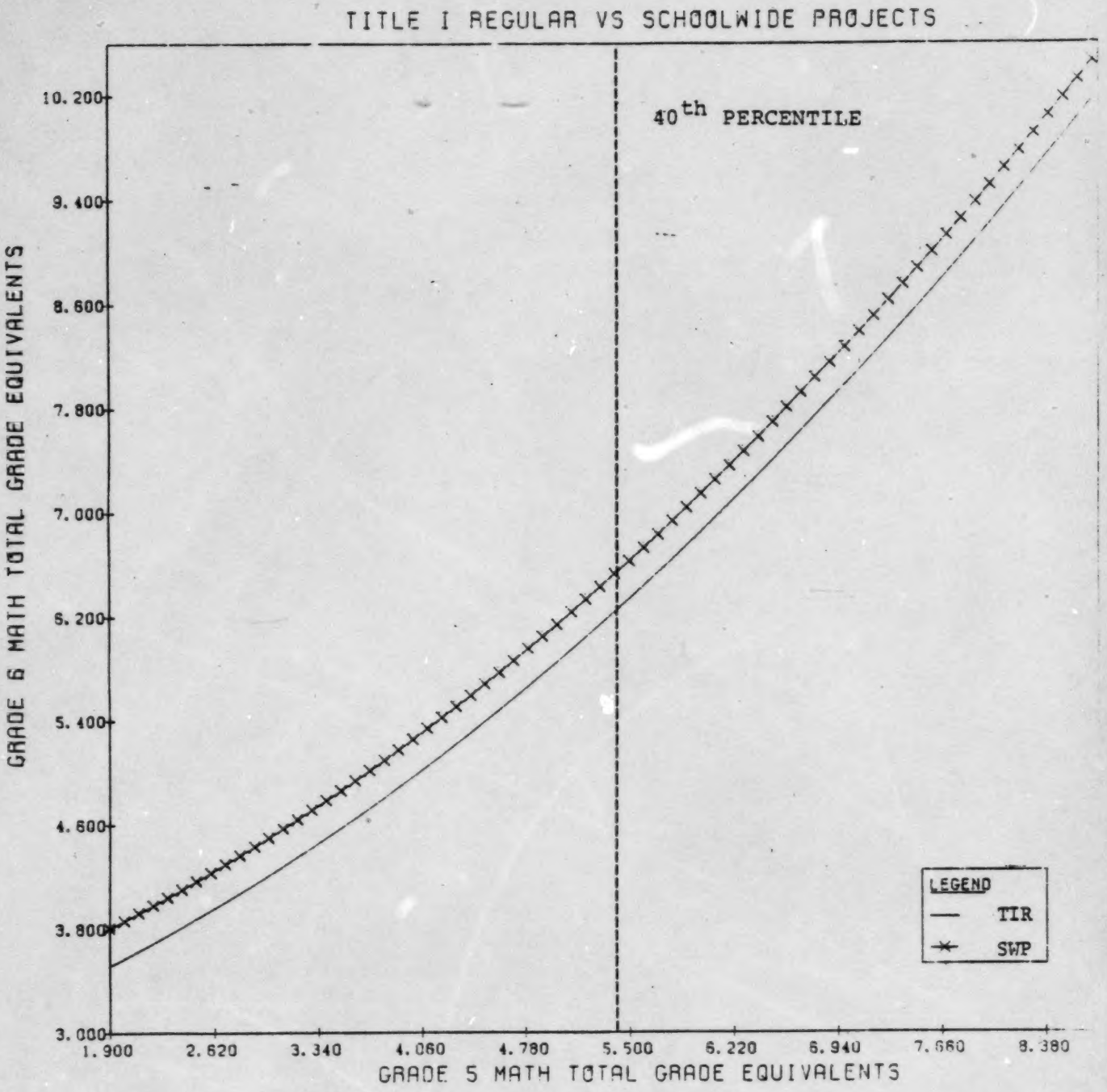


Figure 20: PLOT OF REGRESSION LINES FOR TITLE I SCHOOLWIDE PROJECT AND TITLE I REGULAR SCHOOL STUDENTS--GRADE 6 MATH.

Group/Test	Schoolwide Projects N	Mean	SD	Pre-Post Correl.	Title I Regular Schools N	Mean	SD	Pre-Post Correl.
Grade 2								
Reading Pre	78	1.38	.530	.56	542	1.74	.714	.73
Reading Post	78	2.39	.809		542	2.52	.895	
Language Pre	78	1.32	.663	.55	542	1.92	.938	.66
Language Post	78	2.78	.989		542	2.89	1.251	
Math Pre	78	1.54	.413	.72	542	1.64	.521	.67
Math Post	78	2.51	.626		542	2.53	.677	
Grade 3								
Reading Pre	156	2.10	.812	.87	555	2.55	.966	.82
Reading Post	156	3.16	.954		555	3.42	1.074	
Language Pre	156	2.39	1.078	.71	555	2.88	1.360	.71
Language Post	156	3.81	1.173		555	3.97	1.214	
Math Pre	156	2.39	.549	.74	555	2.61	.639	.70
Math Post	156	3.51	.792		555	3.53	.818	
Grade 4								
Reading Pre	57	3.34	1.029	.86	441	3.33	1.056	.88
Reading Post	57	4.38	1.181		441	4.23	1.400	
Language Pre	57	3.92	1.111	.82	441	3.76	1.233	.84
Language Post	57	5.09	1.273		441	4.77	1.475	
Math Pre	57	3.61	.753	.81	441	3.47	.815	.86
Math Post	57	4.61	.946		441	4.34	1.099	
Grade 5								
Reading Pre	43	4.10	1.296	.89	413	4.25	1.466	.92
Reading Post	43	5.40	1.534		413	5.22	1.680	
Language Pre	43	4.30	1.361	.89	413	4.57	1.463	.88
Language Post	43	5.83	1.668		413	5.68	1.752	
Math Pre	43	4.31	.961	.84	413	4.38	1.110	.38
Math Post	43	5.63	1.067		413	5.36	1.284	
Grade 6								
Reading Pre	63	4.57	1.35	.91	374	5.22	1.698	.93
Reading Post	63	5.69	1.51		374	6.19	1.925	
Language Pre	63	4.95	1.51	.87	374	5.57	1.807	.92
Language Post	63	6.41	1.66		374	6.65	1.992	
Math Pre	63	4.97	1.12	.86	374	5.37	1.375	.90
Math Post	63	6.19	1.29		374	6.32	1.535	

Figure 21: DESCRIPTIVE STATISTICS—ITBS GRADE EQUIVALENT SCORES.

GRADE 2

		R^2	Error Sum of Squares	df	F	p
READING	Model 1 :	.50753	246.987			
				1,625	0.1139	NS
	Model 2 :	.50744	247.032			
				1,626	0.0355	NS
	Model 3 :	.50741	247.046			
				1,627	6.7206	<.01
	Model 4 :	.50213	249.694			

		R^2	Error Sum of Squares	df	F	p
LANGUAGE	Model 1 :	.43908	555.751			
				1,642	0.4124	NS
	Model 2 :	.43872	556.108			
				1,643	0.1295	NS
	Model 3 :	.43860	556.220			
				1,644	13.9852	<.01
	Model 4 :	.42641	568.299			

		R^2	Error Sum of Squares	df	F	p
MATH	Model 1 :	.46750	157.635			
				1,648	0.4275	NS
	Model 2 :	.46715	157.739			
				1,649	3.9704	<.05
	Model 3 :	.46389	158.704			
				1,650	1.9577	NS
	Model 4 :	.46228	159.182			

Figure 22: F-TESTS FOR COMPARISONS BETWEEN TITLE I REGULAR AND SCHOOLWIDE PROJECT SCHOOL STUDENTS AT GRADE 2.

GRADE 3

		R^2	Error Sum of Squares	df	F	p
READING	Model 5 :	.69784	249.061			
				1,733	2.6459	NS
	Model 6 :	.69675	249.960			
				1,734	8.9621	<.01
	Model 7 :	.69305	253.012			

		R^2	Error Sum of Squares	df	F	p
LANGUAGE	Model 1 :	.50314	536.145			
				1,742	0.9507	NS
	Model 2 :	.50250	536.832			
				1,743	1.8907	NS
	Model 3 :	.50123	538.198			
				1,744	3.3800	NS
	Model 4 :	.49762	540.643			

		R^2	Error Sum of Squares	df	F	p
MATH	Model 1 :	.51362	243.802			
				1,747	2.2642	NS
	Model 2 :	.51215	244.541			
				1,748	5.4386	<.05
	Model 3 :	.50860	246.319			
				1,749	12.0779	<.01
	Model 4 :	.50068	250.291			

Figure 23: F-TESTS FOR COMPARISONS BETWEEN TITLE I REGULAR AND SCHOOLWIDE PROJECT SCHOOL STUDENTS AT GRADE 3.

GRADE 4

		R^2	Error Sum of Squares	df	F	p
READING	Model 1 :	.77787	233.626			
				1,549	1.1444	NS
	Model 2 :	.77740	234.113			
				1,550	3.0659	NS
	Model 3 :	.77616	235.418			
				1,551	4.6810	<.05
	Model 4 :	.77426	237.418			

		R^2	Error Sum of Squares	df	F	p
LANGUAGE	Model 1 :	.70719	332.927			
				1,533	0.1521	NS
	Model 2 :	.70711	333.022			
				1,534	1.1449	NS
	Model 3 :	.70648	333.736			
				1,535	3.7800	NS
	Model 4 :	.70441	336.094			

		R^2	Error Sum of Squares	df	F	p
MATH	Model 5 :	.73373	166.666			
				1,525	3.7359	NS
	Model 6 :	.73183	167.852			
				1,526	1.9148	NS
	Model 7 :	.73086	168.463			

Figure 24: F-TESTS FOR COMPARISONS BETWEEN TITLE I REGULAR AND SCHOOLWIDE PROJECT SCHOOL STUDENTS AT GRADE 4.

GRADE 5

READING

	R^2	Error Sum of Squares	df	F	p
Model 5 :	.83985	208.268			
			1,474	0.0045	NS
Model 6 :	.83984	208.270			
			1,475	9.6086	<.01
Model 7 :	.83660	212.483			

LANGUAGE

	R^2	Error Sum of Squares	df	F	p
Model 5 :	.76906	327.139			
			1,471	0.1511	NS
Model 6 :	.76899	327.244			
			1,472	11.2215	<.01
Model 7 :	.76350	335.024			

MATH

	R^2	Error Sum of Squares	df	F	p
Model 1 :	.76997	169.600			
			1,464	2.0710	NS
Model 2 :	.76894	170.357			
			1,465	0.4722	NS
Model 3 :	.76871	170.530			
			1,466	15.3275	<.01
Model 4 :	.76110	176.139			

Figure 25: F-TESTS FOR COMPARISONS BETWEEN TITLE I REGULAR AND SCHOOLWIDE PROJECT SCHOOL STUDENTS AT GRADE 5.

GRADE 6

		R^2	Error Sum of Squares	df	F	p
READING	Model 1 :	.86430	216.865			
				1,446	1.1990	NS
	Model 2 :	.86394	217.448			
				1,447	0.1007	NS
	Model 3 :	.86391	217.497			
				1,448	4.3132	<.05
	Model 4 :	.86259	219.591			

		R^2	Error Sum of Squares	df	F	p
LANGUAGE	Model 5 :	.84172	273.325			
				1,443	0.8720	NS
	Model 6 :	.84141	273.863			
				1,444	12.7203	<.01
	Model 7 :	.83650	281.709			

		R^2	Error Sum of Squares	df	F	p
MATH	Model 1 :	.82019	186.629			
				1,446	0.4780	NS
	Model 2 :	.82000	186.829			
				1,447	0.4044	NS
	Model 3 :	.81984	186.998			
				1,448	10.8192	<.01
	Model 4 :	.81549	191.514			

Figure 26: F-TESTS FOR COMPARISONS BETWEEN TITLE I REGULAR AND SCHOOLWIDE PROJECT SCHOOL STUDENTS AT GRADE 6.

Grade	Advantage of Schoolwide Projects in Months		
	Reading	Language	Math
2	2.0	4.3	*
3	1.6	NS	*
4	1.9	NS	NS
5	3.2	4.5	3.8
6	2.0	3.8	2.9
Average	2.1	2.5	2.2

* Regression slopes not common, see appropriate plots for regions of significance.

NS = Statistically nonsignificant result.

Figure 27: ADVANTAGE OF SCHOOLWIDE PROJECT STUDENTS IN GRADE EQUIVALENT MONTHS. This table shows the ITBS difference in expected scores for Schoolwide Project and Title I Regular school students with the same pretest scores. All differences are significant at at least the .05 level unless otherwise noted.

School/Student Type	Base Personnel Costs From...		
	Local Funds	Title I Funds	Total
Title I Regular Schools			
Title I Child	$761	$307	$1,068
Non-Title I Child	761	0	761
Average Child (Title I + Non-Title I)	761	133	894
Schoolwide Projects			
Average Child	$873	$180	$1,057

Figure 28: BASE PERSONNEL COSTS FOR TITLE I REGULAR AND SCHOOLWIDE PROJECT SCHOOLS.

PUPIL ACTIVITIES RECORD - REVISED (PAR-R)
1980-1981

SCHOOL HOURS SPENT IN DIFFERENT SCHOOL LOCATIONS

STUDENTS	CLASSROOM	READING LAB	SCHOOL LIBRARY	OTHER *
SCHOOLWIDE PROJ. <40TH %ILE				
GRADE 2 N= 39	4:57	:00	:07	1:26
GRADE 5 N= 19	4:29	:00	:07	1:54
GRADES 2 & 5 N= 58	4:48	:00	:07	1:35
SCHOOLWIDE PROJ. >40TH %ILE				
GRADE 2 N= 40	4:56	:00	:08	1:27
GRADE 5 N= 20	4:29	:00	:08	1:53
GRADES 2 & 5 N= 60	4:47	:00	:08	1:35
TITLE I SCHOOLS <40TH %ILE				
GRADE 2 N= 20	4:33	:15	:01	1:41
GRADE 5 N= 20	4:14	:07	:03	2:06
GRADES 2 & 5 N= 40	4:23	:11	:02	1:53
TITLE I SCHOOLS >40TH %ILE				
GRADE 2 N= 36	4:45	:00	:04	1:42
GRADE 5 N= 36	4:31	:00	:05	1:54
GRADES 2 & 5 N= 72	4:38	:00	:04	1:48
SCHOOLS WITH FTI <40TH %ILE				
GRADE 2 N= 20	4:46	:04	:05	1:35
GRADE 5 N= 19	4:38	:01	:04	1:46
GRADES 2 & 5 N= 39	4:42	:03	:05	1:40
SCHOOLS WITH FTI >40TH %ILE				
GRADE 2 N= 20	4:58	:00	:03	1:29
GRADE 5 N= 30	4:25	:00	:09	1:56
GRADES 2 & 5 N= 50	4:38	:00	:07	1:46
SCHOOLS W/O FTI >40TH %ILE				
GRADE 2 N= 20	4:39	:00	:09	1:43
GRADE 5 N= 10	4:34	:00	:03	1:53
GRADES 2 & 5 N= 30	4:37	:00	:07	1:46

* ALL SCHOOL LOCATIONS OTHER THAN CLASSROOMS, READING LABS, AND LIBRARY. INCLUDES HALLWAYS, AUDITORIUM, LUNCHEON, RESTROOM, AND ART ACTIVITIES OUT OF THE CLASSROOM.

Figure 29: SCHOOL HOURS SPENT IN DIFFERENT LOCATION

PUPIL ACTIVITIES RECORD - REVISED (PAR-R)
1980-1981

INSTRUCTIONAL TIME SPENT IN GROUPS OF VARIOUS SIZES DURING BASIC SKILLS

STUDENTS	1	2-5	6-9	10-13	14-17	18 OR GREATER	AVERAGE SIZE OF GROUP	AVERAGE SIZE WHEN > 1
SCHOOLWIDE PROJ. <40TH %ILE								
GRADE 2 N= 39	1:28	:19	:12	:30	:43	:05	7.10	12.09
GRADE 5 N= 19	1:26	:18	:06	:28	:44	:06	7.44	12.91
GRADES 2 & 5 N= 58	1:27	:18	:10	:29	:43	:06	7.21	12.35
SCHOOLWIDE PROJ. >40TH %ILE								
GRADE 2 N= 40	1:32	:14	:10	:41	:35	:09	7.65	13.25
GRADE 5 N= 20	1:34	:16	:04	:25	:47	:09	7.13	12.82
GRADES 2 & 5 N= 60	1:33	:15	:08	:36	:35	:09	7.48	13.11
TITLE I SCHOOLS <40TH %ILE								
GRADE 2 N= 20	1:25	:20	:13	:03	:11	:54	8.80	15.43
GRADE 5 N= 20	1:29	:16	:16	:08	:06	1:00	9.61	16.84
GRADES 2 & 5 N= 40	1:27	:18	:14	:05	:08	:57	9.22	16.16
TITLE I SCHOOLS >40TH %ILE								
GRADE 2 N= 36	1:28	:06	:10	:06	:07	1:07	10.15	18.52
GRADE 5 N= 36	1:45	:05	:04	:07	:06	1:06	9.72	20.05
GRADES 2 & 5 N= 72	1:36	:05	:07	:06	:07	1:07	9.93	19.25
SCHOOLS WITH FTI <40TH %ILE								
GRADE 2 N= 20	1:31	:27	:09	:03	:07	:59	8.75	15.44
GRADE 5 N= 19	1:44	:06	:07	:03	:05	1:15	10.60	21.13
GRADES 2 & 5 N= 39	1:37	:17	:08	:03	:06	1:06	9.66	18.06
SCHOOLS WITH FTI >40TH %ILE								
GRADE 2 N= 20	1:39	:06	:13	:05	:04	1:08	9.42	18.07
GRADE 5 N= 30	1:37	:05	:04	:02	:04	1:24	11.74	22.09
GRADES 2 & 5 N= 50	1:38	:05	:08	:03	:04	1:18	10.82	20.52
SCHOOLS W/O FTI >40TH %ILE								
GRADE 2 N= 20	1:39	:02	:09	:05	:05	1:19	11.35	21.51
GRADE 5 N= 10	1:50	:03	:03	:04	:05	1:25	12.29	24.62
GRADES 2 & 5 N= 30	1:43	:03	:07	:05	:05	1:21	11.67	22.55

Figure 30: INSTRUCTIONAL TIME SPENT IN GROUPS OF VARIOUS SIZES DURING BASIC SKILLS.

PUPIL ACTIVITIES RECORD - REVISED (PAR-R)
1980-1981

INSTRUCTIONAL HOURS DURING WHICH STUDENTS WERE IN CONTACT WITH...

STUDENTS	CLASSROOM TEACHER	OTHER TEACHER	TITLE I TEACHER	COUNSELOR	TITLE I AIDE	OTHER AIDE	NO ONE
SCHOOLWIDE PROJ. <40TH %ILE							
GRADE 2 N= 39	1:30	:11	:00	:00	:01	:00	1:34
GRADE 5 N= 19	1:22	:10	:00	:00	:00	:01	1:34
GRADES 2 & 5 N= 58	1:28	:10	:00	:00	:01	:00	1:34
SCHOOLWIDE PROJ. >40TH %ILE							
GRADE 2 N= 40	1:37	:08	:00	:00	:01	:00	1:35
GRADE 5 N= 20	1:12	:15	:00	:01	:00	:00	1:47
GRADES 2 & 5 N= 60	1:29	:10	:00	:00	:00	:00	1:39
TITLE I SCHOOLS <40TH %ILE							
GRADE 2 N= 20	1:14	:17	:10	:02	:03	:01	1:18
GRADE 5 N= 20	1:08	:18	:10	:03	:00	:00	1:38
GRADES 2 & 5 N= 40	1:11	:17	:10	:02	:02	:01	1:28
TITLE I SCHOOLS >40TH %ILE							
GRADE 2 N= 36	1:14	:15	:00	:00	:00	:03	1:32
GRADE 5 N= 36	1:04	:19	:01	:01	:00	:00	1:49
GRADES 2 & 5 N= 72	1:09	:17	:00	:00	:00	:01	1:40
SCHOOLS WITH FTI <40TH %ILE							
GRADE 2 N= 20	1:14	:22	:00	:00	:00	:01	1:34
GRADE 5 N= 19	:57	:31	:00	:00	:00	:01	1:50
GRADES 2 & 5 N= 39	1:06	:26	:00	:00	:00	:01	1:45
SCHOOLS WITH FTI >40TH %ILE							
GRADE 2 N= 20	1:21	:08	:00	:00	:00	:01	1:46
GRADE 5 N= 30	1:10	:24	:00	:00	:00	:00	1:43
GRADES 2 & 5 N= 50	1:14	:18	:00	:00	:00	:00	1:44
SCHOOLS W/O FTI >40TH %ILE							
GRADE 2 N= 20	1:16	:30	:00	:00	:00	:01	1:33
GRADE 5 N= 10	1:22	:07	:00	:00	:00	:00	2:01
GRADES 2 & 5 N= 30	1:18	:22	:00	:00	:00	:01	1:42

Figure 31: INSTRUCTIONAL HOURS DURING WHICH STUDENTS WERE IN CONTACT WITH (PERSON).

PUPIL ACTIVITIES RECORD - REVISED (PAR-R)
1980-1981

SCHOOL HOURS SPENT IN EACH ACTIVITY BY STUDENTS OBSERVED

STUDENTS	BASIC SKILLS/MAJOR CONTENT AREAS: READING/LANGUAGE ARTS ON TASK	READING/LANGUAGE ARTS OFF TASK	READING/LANGUAGE ARTS TOTAL	MATH ON TASK	MATH OFF TASK	MATH TOTAL	SOCIAL STUDIES ON TASK	SOCIAL STUDIES OFF TASK	SOCIAL STUDIES TOTAL	SCIENCE ON TASK	SCIENCE OFF TASK	SCIENCE TOTAL	UNDETERMINED* ON TASK	UNDETERMINED* OFF TASK	UNDETERMINED* TOTAL	ALL AREAS ON TASK	ALL AREAS OFF TASK	ALL AREAS TOTAL
SCHOOLWIDE PROJ. <40TH %ILE																		
GRADE 2 N= 39	2:13	:06	2:19	:32	:01	:33	:06	:00	:06	:13	:00	:14	:04	:00	:04	3:08	:08	3:16
GRADE 5 N= 19	1:42	:08	1:50	:44	:01	:45	:15	:00	:15	:13	:00	:14	:03	:00	:03	2:57	:10	3:07
GRADES 2 & 5 N= 58	2:03	:07	2:09	:36	:01	:37	:09	:00	:09	:13	:00	:14	:04	:00	:04	3:04	:08	3:13
SCHOOLWIDE PROJ. >40TH %ILE																		
GRADE 2 N= 40	2:08	:02	2:10	:36	:01	:37	:13	:00	:13	:18	:00	:18	:02	:00	:02	3:18	:03	3:21
GRADE 5 N= 20	1:57	:03	2:00	:40	:02	:41	:29	:00	:29	:05	:00	:05	:01	:00	:01	3:12	:04	3:16
GRADES 2 & 5 N= 60	2:04	:02	2:07	:37	:01	:38	:18	:00	:18	:14	:00	:14	:02	:00	:02	3:16	:03	3:19
TITLE I SCHOOLS <40TH %ILE																		
GRADE 2 N= 20	2:07	:07	2:14	:30	:02	:32	:03	:00	:03	:12	:00	:12	:03	:00	:03	2:56	:09	3:05
GRADE 5 N= 20	1:41	:13	1:54	:38	:07	:45	:11	:03	:15	:15	:02	:17	:05	:00	:05	2:50	:25	3:15
GRADES 2 & 5 N= 40	1:54	:10	2:04	:34	:04	:39	:07	:02	:09	:13	:01	:14	:04	:00	:04	2:53	:17	3:10
TITLE I SCHOOLS >40TH %ILE																		
GRADE 2 N= 36	2:07	:06	2:13	:28	:02	:30	:10	:00	:11	:09	:00	:09	:02	:00	:02	2:56	:08	3:04
GRADE 5 N= 36	1:45	:02	1:47	:43	:01	:43	:26	:01	:26	:15	:00	:15	:02	:00	:02	3:10	:04	3:13
GRADES 2 & 5 N= 72	1:56	:04	2:00	:36	:01	:37	:18	:00	:18	:12	:00	:12	:02	:00	:02	3:03	:06	3:09
SCHOOLS WITH FTI <40TH %ILE																		
GRADE 2 N= 20	2:10	:09	2:20	:33	:04	:37	:09	:01	:11	:06	:00	:07	:02	:01	:03	3:01	:16	3:16
GRADE 5 N= 19	1:42	:05	1:47	:43	:02	:45	:19	:02	:20	:20	:01	:22	:04	:01	:05	3:08	:10	3:19
GRADES 2 & 5 N= 39	1:56	:07	2:04	:38	:03	:41	:14	:01	:15	:13	:01	:14	:03	:01	:04	3:04	:13	3:17
SCHOOLS WITH FTI >40TH %ILE																		
GRADE 2 N= 20	2:04	:06	2:10	:37	:03	:41	:08	:00	:08	:11	:00	:11	:05	:00	:05	3:06	:10	3:15
GRADE 5 N= 30	1:49	:02	1:51	:41	:01	:42	:22	:00	:22	:19	:00	:19	:04	:00	:04	3:14	:03	3:17
GRADES 2 & 5 N= 50	1:55	:03	1:59	:39	:02	:41	:16	:00	:16	:16	:00	:16	:04	:00	:04	3:11	:06	3:16
SCHOOLS W/O FTI >40TH %ILE																		
GRADE 2 N= 20	2:16	:05	2:21	:36	:01	:37	:16	:00	:16	:04	:00	:04	:02	:00	:02	3:14	:06	3:20
GRADE 5 N= 10	1:43	:02	1:45	:52	:01	:53	:50	:00	:50	:00	:00	:00	:01	:00	:01	3:27	:03	3:30
GRADES 2 & 5 N= 30	2:05	:04	2:09	:41	:01	:42	:27	:00	:27	:03	:00	:03	:01	:00	:02	3:18	:05	3:23

* EXAMPLES OF UNDETERMINED ACTIVITIES WOULD BE: INSTRUCTION PROVIDED BY THE COUNSELOR, INSTRUCTIONAL GAMES, FILMS, AND LIBRARY ACTIVITIES THAT ARE NOT OBVIOUSLY RELATED TO PARTICULAR SUBJECT AREAS.

Figure 32: SCHOOL HOURS SPENT IN EACH ACTIVITY BY STUDENTS OBSERVED--ON TASK/OFF TASK.

PUPIL ACTIVITIES RECORD - REVISED (PAR-R)
1980-1981

SCHOOL HOURS SPENT IN EACH ACTIVITY BY STUDENTS OBSERVED

	ACTIVITIES OTHER THAN BASIC SKILLS/MAJOR CONTENT AREAS								
	ART	MUSIC	P. E.	EXT. PE	LUNCH	BETWEEN CLASS	OTHER*	MGMT./ MISC.**	TOTAL
SCHOOLWIDE PROJ. <40TH %ILE									
GRADE 2 N= 39	:15	:13	:08	:07	:30	:13	:14	1:34	3:14
GRADE 5 N= 19	:19	:07	:16	:03	:28	:13	:28	1:29	3:23
GRADES 2 & 5 N= 58	:16	:11	:10	:06	:29	:13	:19	1:33	3:17
SCHOOLWIDE PROJ. >40TH %ILE									
GRADE 2 N= 40	:12	:10	:12	:07	:30	:14	:13	1:31	3:09
GRADE 5 N= 20	:22	:13	:14	:08	:29	:13	:24	1:12	3:14
GRADES 2 & 5 N= 60	:16	:11	:12	:07	:30	:13	:17	1:25	3:11
TITLE I SCHOOLS <40TH %ILE									
GRADE 2 N= 20	:13	:12	:13	:11	:28	:16	:17	1:36	3:25
GRADE 5 N= 20	:15	:21	:18	:07	:29	:17	:10	1:19	3:15
GRADES 2 & 5 N= 40	:14	:17	:15	:09	:28	:16	:13	1:27	3:20
TITLE I SCHOOLS >40TH %ILE									
GRADE 2 N= 36	:08	:07	:21	:08	:30	:14	:15	1:43	3:26
GRADE 5 N= 36	:10	:15	:19	:08	:29	:15	:12	1:29	3:17
GRADES 2 & 5 N= 72	:09	:11	:20	:08	:29	:14	:14	1:36	3:21
SCHOOLS WITH FTI <40TH %ILE									
GRADE 2 N= 20	:08	:19	:07	:05	:29	:16	:09	1:40	3:14
GRADE 5 N= 19	:11	:18	:19	:07	:28	:16	:11	1:22	3:11
GRADES 2 & 5 N= 39	:09	:19	:13	:06	:28	:16	:10	1:31	3:13
SCHOOLS WITH FTI >40TH %ILE									
GRADE 2 N= 20	:13	:19	:09	:04	:27	:15	:12	1:35	3:15
GRADE 5 N= 30	:09	:13	:26	:07	:28	:15	:17	1:18	3:13
GRADES 2 & 5 N= 50	:10	:16	:19	:06	:28	:15	:15	1:25	3:14
SCHOOLS W/O FTI >40TH %ILE									
GRADE 2 N= 20	:13	:22	:12	:07	:26	:15	:04	1:32	3:10
GRADE 5 N= 10	:10	:13	:23	:11	:27	:11	:17	1:09	3:00
GRADES 2 & 5 N= 30	:12	:19	:16	:08	:26	:14	:08	1:24	3:07

* EXAMPLES OF OTHER ACTIVITIES ARE: SCHOOL ASSEMBLY, SESSION WITH COUNSELOR, SCHOOL FAIR.

** EXAMPLES OF MGMT./MISC. ARE: TRANSITIONAL ACTIVITY WITHIN THE CLASSROOM, ANNOUNCEMENT, CLASSROOM MANAGEMENT BY TEACHER SUCH AS DISCIPLINARY ACTIVITIES AND GENERAL GIVING OF DIRECTIONS.

Figure 33: SCHOOL HOURS SPENT IN EACH ACTIVITY BY STUDENTS OBSERVED--ACTIVITIES OTHER THAN BASIC SKILLS.

PUPIL ACTIVITIES RECORD - REVISED (PAR-R)
1980-1981

SCHOOL HOURS SPENT IN MANAGEMENT/MISCELLANEOUS ACTIVITIES

STUDENTS	DIRECTS *	CLEAN UP *	CLASS CONTROL*	TRANSITION *	OTHER *	TOTAL
SCHOOLWIDE PROJ. <40TH %ILE						
GRADE 2 N= 39	:12	:01	:02	:15	1:05	1:34
GRADE 5 N= 19	:09	:02	:01	:12	1:06	1:29
GRADES 2 & 5 N= 58	:11	:02	:01	:14	1:05	1:33
SCHOOLWIDE PROJ. >40TH %ILE						
GRADE 2 N= 40	:11	:06	:01	:16	:58	1:31
GRADE 5 N= 20	:09	:01	:01	:12	:49	1:12
GRADES 2 & 5 N= 60	:10	:05	:01	:14	:55	1:25
TITLE I SCHOOLS <40TH %ILE						
GRADE 2 N= 20	:09	:02	:01	:17	1:07	1:36
GRADE 5 N= 20	:09	:01	:02	:12	:55	1:19
GRADES 2 & 5 N= 40	:09	:01	:01	:15	1:01	1:27
TITLE I SCHOOLS >40TH %ILE						
GRADE 2 N= 36	:10	:02	:02	:16	1:13	1:43
GRADE 5 N= 36	:09	:02	:02	:12	1:05	1:29
GRADES 2 & 5 N= 72	:09	:02	:02	:14	1:09	1:36
SCHOOLS WITH FTI <40TH %ILE						
GRADE 2 N= 20	:12	:03	:02	:17	1:07	1:40
GRADE 5 N= 19	:11	:01	:02	:12	:56	1:22
GRADES 2 & 5 N= 39	:12	:02	:02	:15	1:01	1:31
SCHOOLS WITH FTI >40TH %ILE						
GRADE 2 N= 20	:10	:01	:03	:16	1:06	1:35
GRADE 5 N= 30	:12	:01	:01	:12	:51	1:18
GRADES 2 & 5 N= 50	:11	:01	:02	:14	:57	1:25
SCHOOLS W/O FTI >40TH %ILE						
GRADE 2 N= 20	:11	:01	:01	:18	1:02	1:32
GRADE 5 N= 10	:10	:01	:02	:12	:45	1:09
GRADES 2 & 5 N= 30	:10	:01	:01	:16	:56	1:24

* DIRECTS: STUDENT IS LISTENING TO DIRECTIONS FROM TEACHER THAT ARE RELATED TO WHAT THE STUDENT IS TO DO RATHER THAN HOW TO DO IT.

CLEAN UP: STUDENT IS INVOLVED IN CLEAN-UP ACTIVITIES SUCH AS THROWING AWAY PAPERS, WIPING DOWN TABLES, ETC.

CLASS CONTROL: TEACHER IS ENGAGED IN DISCIPLINARY ACTION WHICH AFFECTS THE STUDENT UNDER OBSERVATION SO THAT NO INSTRUCTIONAL ACTIVITY IN THE BASIC SKILLS/MAJOR CONTENT AREAS IS OCCURRING FOR THE STUDENT.

TRANSITION: STUDENT IS INVOLVED IN SHIFTING FROM ONE ACTIVITY TO ANOTHER. INCLUDES PUTTING UP MATERIALS, GETTING OUT MATERIALS, AND ALL LINE-UP TIME.

OTHER: STUDENT IS NOT INVOLVED IN INSTRUCTIONAL ACTIVITY FOR SOME REASON OTHER THAN THOSE LISTED IN THE FOUR SUBCATERGORIES ABOVE. INCLUDES ANNOUNCEMENTS, ROLL CALL, TAKING UP LUNCH MONEY, ETC.

Figure 34: SCHOOL HOURS SPENT IN MANAGEMENT/MISCELLANEOUS ACTIVITIES.

CONTENT OF INSTRUCTION DURING THE BASIC SKILLS AREA OF: ALL BASIC SKILLS AREAS

STUDENTS	COMPREHENSION	LISTEN PERCEPTUAL	HANDWRITING	ORAL EXPRESSION	READ-SILENT ORAL	SPELLING SKILLS	VOCABULARY SKILLS	WORD ATTACK SKILLS	WRITE: COMPOSITION	STUDYING SKILLS	WRITE: GRAMMAR	LITERARY SKILLS	OTHER	TIME IN ALL CONTENT AREAS
SCHOOLWIDE PROJ. <40TH %ILE														
GRADE 2 N= 39	3:03	:17	:06	:07	:36	:54	:35	:13	:09	:02	:13	:00	:01	3:16
GRADE 5 N= 19	3:03	:10	:01	:02	:33	:35	:25	:02	:10	:06	:20	:05	:01	3:07
GRADES 2 & 5 N= 58	3:03	:14	:05	:05	:35	:48	:32	:09	:09	:03	:15	:02	:01	3:13
SCHOOLWIDE PROJ. >40TH %ILE														
GRADE 2 N= 40	3:10	:17	:04	:06	:40	:49	:38	:13	:04	:04	:13	:00	:04	3:21
GRADE 5 N= 20	3:09	:14	:00	:03	:44	:30	:31	:01	:11	:12	:20	:02	:04	3:16
GRADES 2 & 5 N= 60	3:10	:16	:03	:05	:41	:43	:36	:09	:06	:07	:15	:01	:04	3:19
TITLE I SCHOOLS <40TH %ILE														
GRADE 2 N= 20	3:00	:05	:04	:06	:51	:49	:41	:08	:07	:02	:08	:00	:02	3:05
GRADE 5 N= 20	3:14	:10	:02	:04	:39	:28	:33	:08	:07	:09	:15	:02	:02	3:15
GRADES 2 & 5 N= 40	3:07	:08	:03	:05	:45	:38	:37	:08	:07	:05	:11	:01	:02	3:10
TITLE I SCHOOLS >40TH %ILE														
GRADE 2 N= 36	3:02	:10	:04	:06	:45	:42	:39	:09	:07	:04	:13	:00	:01	3:04
GRADE 5 N= 36	3:11	:10	:03	:05	:41	:27	:27	:03	:06	:09	:14	:02	:02	3:13
GRADES 2 & 5 N= 72	3:06	:10	:03	:06	:43	:35	:33	:06	:07	:07	:13	:01	:01	3:09
SCHOOLS WITH FTI <40TH %ILE														
GRADE 2 N= 20	3:06	:13	:04	:05	:36	1:03	:48	:15	:07	:01	:07	:00	:02	3:16
GRADE 5 N= 19	3:15	:04	:06	:05	:30	:31	:19	:04	:03	:10	:20	:00	:05	3:19
GRADES 2 & 5 N= 39	3:11	:09	:05	:05	:33	:47	:34	:09	:05	:06	:13	:00	:03	3:17
SCHOOLS WITH FTI >40TH %ILE														
GRADE 2 N= 20	3:11	:14	:06	:02	:36	:57	:33	:10	:02	:03	:07	:01	:03	3:15
GRADE 5 N= 30	3:11	:09	:02	:05	:43	:25	:19	:02	:10	:10	:19	:01	:02	3:17
GRADES 2 & 5 N= 50	3:11	:11	:04	:04	:40	:38	:25	:05	:07	:07	:14	:01	:02	3:16
SCHOOLS W/O FTI >40TH %ILE														
GRADE 2 N= 20	3:09	:13	:08	:05	:42	:48	:38	:09	:07	:07	:14	:01	:03	3:20
GRADE 5 N= 10	3:24	:09	:03	:08	:48	:16	:22	:00	:15	:16	:11	:06	:05	3:30
GRADES 2 & 5 N= 30	3:14	:11	:06	:06	:44	:37	:33	:06	:09	:10	:13	:03	:03	3:23

Figure 35: CONTENT OF INSTRUCTION DURING THE BASIC SKILLS AREA OF: ALL BASIC SKILLS AREAS.

School	Enrollment	No. of Regular Teachers	Student/ Regular Teacher Ratio	No. of Title I Teachers to Add	Revised Student/Teacher Ratio
School 1	445	17	26.18	3	22.25
School 2	372	14	26.57	2.5	22.55
School 3	547	22	24.86	2	22.79
School 4	396	16	24.75	5	18.86
School 5	685	27	25.37	5	21.41
School 6	625	25	25.00	5	20.83
School 7	569	23	24.74	3	21.88
School 8	425	18	23.61	3	20.24
School 9	420	19	22.11	3.5	18.67
School 10	499	22	22.68	5	18.48
School 11	275	11	25.00	2	21.15
School 12	377	16	23.56	3	19.84
School 13	336	14	24.00	2	21.00
School 14	245	11	22.27	1	20.42
School 15	237	10	23.70	2	19.75
School 16	136	6	22.67	1	19.43
School 17	227	9	25.22	1	22.70
School 18	693	27	25.67	3	23.10
School 19	280	11	25.45	2	21.54
School 20	655	25	26.20	4	22.59
School 21	439	17	25.82	3	21.95
School 22	401	16	25.06	3.5	20.56
School 23	237	11	21.55	2	18.23
School 24	574	24	23.92	4	20.50
School 25	532	23	23.13	2	21.28
School 26	883	35	25.23	5	22.08

Figure 36: EFFECT OF USING TITLE I TEACHERS AS REGULAR CLASSROOM TEACHERS ON THE AVERAGE PUPIL/TEACHER RATIO IN AUSTIN TITLE I SCHOOLS.

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